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AUDUBON SOCIETY



APRIL 1955

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FOR THE PROTECTION OF WILD BIRDS AND MAMMALS

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BULLETIN

OF THE

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The Editor solicits the gift of articles, notes, photographs, and sketches, on the various aspects of Nature Lore, Natural Science, and Conservation of Natural Resources. If possible, articles should be typewritten, double-spaced, on one side of the paper. Photographs should be on glossy paper with data attached. The Society is a non-profit educational institution and we offer no remuneration for contributions to the *Bulletin*. The Society assumes no responsibility for the safety of manuscripts or illustrations submitted for its use.

All correspondence, changes of address, etc., should be directed to the Editorial Office, 155 Newbury Street, Boston 16.

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The President's Page



Not only to Mrs. Ada Govan were "Wings at My Window" a source of pleasure in times of trial; to very many persons shut off from the world at large by sickness they are a blessed relaxation and diversion. And there is so much of interest in observation that the senses of sight and hearing are kept in practice. The attention of the observer is attracted and his curiosity is rewarded in very many ways. He may consider, for example:—

At what date does the first sign of the spring plumage make its appearance in the Purple Finch? In the Goldfinch? In the male bird? In the female? In the young?

Was the date the same date as last year? If not, how does the weather differ now? Or in the past weeks?

What are the habits of feeding? Which, if any, species gang up against others? Do the Chickadees occupy the whole feeding shelf so that the Evening Grosbeaks cannot get at the sunflower seeds?

Do the House Sparrows and Starlings stay away from the shelf? If they come, do they fight amongst themselves? or with other species?

The modern White of Selborne will be stimulated to observe and record the answers.

Robert Walcott

The Yellow-billed Cuckoo Flight of 1954

By LUDLOW GRISCOM



A Yellow-billed Cuckoo

CHARLES BLAKNEY

New England had a remarkable visitation of Yellow-billed Cuckoos after Hurricanes Carol (Aug. 31) and Edna (Sept. 11-12 coast of Maine). Usually rare to uncommon, and little known as a fall transient, it naturally occurred to many that the hurricanes were probably responsible. The Massachusetts Audubon Society therefore collected the data, Mrs. Ruth P. Emery collated it, and it was passed on to me with the request that I prepare something in the nature of a summary report. Several incomplete reports came in saying "everywhere" or "good numbers," and the members of the Old Colony Bird Club wrote to these reporters requesting further details, and all kindly replied. Historically this invasion is clearly paralleled by the flight of Killdeer, Nov. 25, 26, 1833, during a violent southeast gale, widely written up in the magazines, when the Killdeer was virtually accidental in eastern Massachusetts and extirpated as a summer resident.

The present flight is by no means so simple to understand, and is complicated by the fact that the Yellow-billed Cuckoo's breeding range has been slowly but steadily pushing northward in New England since 1935. The net result is that many people (chiefly inland dwellers) deny that there was any hurricane or storm eruption at all, and they wish to argue that the unprecedented numbers were the results of 1) a great increase in competent observers; 2) the northward spread or increase of the species; and 3) rumors of a successful nesting season, thus accounting for the increased reports of fall transients. My own impression and that of many friends and companions with

ten to twenty-five years' active field experience is that we all saw more Yellow-billed Cuckoos this fall than in all the previous ten to twenty-five years added together! Moreover, this cuckoo reached further north in greater numbers than ever previously recorded, thus eliminating most of the arguments given above. There is, however, a serious conflict in *dates*, and those who wish to follow the facts given below can make up their own minds as to which hurricane brought which birds where! First, let us review the status and dates of occurrence so far as known.

Maine. Rare and irregular summer resident in York, Cumberland, and southern Androscoggin Counties, rare visitant to Oxford and other coastal counties, casual north to Mt. Desert, April 15, 1884 (collected) (Palmer). Increasing in recent years north to Lincoln Co., 1938 on, where now regular (Cruikshank and Higginbotham). Dr. Ralph Palmer has the impression that this species had a very successful breeding season in 1954. Latest date, Oct. 4.

New Hampshire. Very rare and irregular summer resident in southern half in the Transition areas, chiefly in the Merrimack or Connecticut River valleys, north casually to Newfound Lake (collected) (G. M. Allen). I spent three summers at Peterborough, N. H., going regularly to both river valleys and saw this cuckoo but once, in July, 1932. Increasing in recent years, reported from Andover (1938 on, K. Elkins); Goffstown; New Hampton (1945 on); Sunapee Lake Region; Salisbury; Marlboro (1950); Pittsburg, 1 seen June 7, 1949 (Fred Scott). No October record.

Vermont. Rare and local summer resident in the southern half, averaging 2-4 pairs near Bennington annually, but commoner than the Black-billed Cuckoo in 1934 and 1937. (Lucretius H. Ross *in litt*). Collected at Woodstock, Vermont, Oct. 14, 1940 (Weaver). Detailed information about balance of State inadequate.

Massachusetts. Berkshire Co.: Very uncommon, except in years of maximum abundance of tent caterpillars, almost entirely confined to the Housatonic Valley at lower altitudes, usually gone by Sept. 26 (Bartlett Hendricks *in litt*). **Connecticut Valley:** Irregular summer resident, either rare or uncommon, especially so in the higher hill towns. Vagrants reported in October (Bagg and Eliot). **Eastern section:** Irregular summer resident, either rare or uncommon, increasing northward in Essex Co. since 1935. Absent on the islands and the outer part of Cape Cod as a summer resident, where formerly very rare as a transient, becoming regular and increasing since 1937. Collected at Wellfleet, Nov. 7, 1890 (O. Bangs), otherwise only four times reported in October up to 1954.

Rhode Island. A summer resident, irregularly common (Forbush).

Connecticut. A common summer resident, irregularly abundant (Forbush).

Let us now attempt to summarize the 1954 records. It must be recalled that Hurricane Hazel passed *west* of New England, Oct. 15-16, but brought Laughing Gulls and Forster's Terns to Berkshire Co. on Oct. 16 (fide Bartlett Hendricks *in litt*). Moreover, September closed with another "southerly" storm with heavy rain, but locally no high winds, and there were others in early November.

Newfoundland. Collected at St. John's, Oct. 12, 1954, and two others seen (Leslie Tuck *in litt*). First records for the island.

Nova Scotia. One earlier "accidental" record. I am greatly indebted to Dr. Harrison F. Lewis for permission to use some of the facts collected by

him, who conservatively omits sight records where cuckoos were seen but not specifically identified. Halifax, collected, Oct. 1; another picked up alive, Oct. 2; seen, Oct. 15 (Harold F. Tufts). Five collected near Halifax, Sept. 30-Nov. 5 (W. J. Mills); and ten seen, Nov. 7. Seen also at White Point, Queen Co., and Sables and Arnold, Shelburne Co.

Quebec. Near Quebec City in late September and early October, giving the impression of *arriving* as a fall transient!

New Brunswick. Normally a rare and irregular summer resident and straggler, in numbers only, Sept. 30-Oct. 1, 1930, after a storm (Squires). No reports in 1954.

Maine. Reported from *twenty-eight* localities, mostly coastal in Somerset, Washington, Hancock, Lincoln, Cumberland, and York Counties, chiefly single birds, several injured, killed by a car, seven found dead. Inland to Katahdin region (no details), Bangor, Skowhegan, Oakland, Fairfield, Cumberland Mills, Topsham, Westbrook, Biddeford, and Saco. *Dates of occurrence:* During Hurricane Carol, on Aug. 31, a cuckoo was dashed against a house at Skowhegan and kept in captivity until October. A cuckoo was not seen again there until Oct. 1, when one was seen and two found dead. Otherwise *no cuckoo was reported* until Sept. 20 (2x), Sept. 23 (3x), thereafter generally distributed. October: First reported from *nineteen* localities after Oct. 4. Continuously present at only five localities from late September to mid-October or later. Extreme dates are Nov. 7 (Biddeford, York Co.), Nov. 11 (Ocean Park, Cumberland Co.), and Nov. 15 (Greenville, Somerset Co.). There were at least four reports after Oct. 20-26.

It soon became obvious that the cuckoos were starving and in trouble. Food must have been very scarce, the leaves were prematurely torn off the trees or killed by salt spray (true throughout the Northeast in the hurricane belt). Cuckoos were found on the ground in weed patches, flushed from the roadside like Quail by a passing car. Thus Mr. Mark L. Libby writes me that peak numbers were reached at New Harbor (Lincoln Co.), Sept. 20-Oct. 23. He would see 10 a day, but if he drove to Damariscotta by car, he would see up to 20. This was what he meant by "good numbers"!

Maine Arranged Geographically

Katahdin region	Pleasant Ridge, Newagen	Oct.	Many + 13
Somerset Co.	Greenville	Nov. 15	1
Washington Co.	Harrington	Oct. 4	1
Hancock Co.	Bangor (inland)	Oct. 26	1
"	Levant (inland)	Oct. 26	1 dead
"	Petit Manan Isl.	Oct. 3-5	100 est.
"	Castine	Oct. 5	1, 1 killed by car
"	Eastbrook	Oct. 1	1
"	Skowhegan (inland)	Aug. 31-Oct. 8	1 + 2 dead ✓ (Carol) 1 injured against house, kept in captivity
"	Oakland (inland)	Oct. 13	50+ in weed field
"	Fairfield (inland)	Oct. 13	100+ in weed field

Lincoln Co.	New Harbor — Damariscotta	Sept. 20-Oct. 23	10-20 per day if car
"	Tenants Harbor	Sept. 23-29, Oct. 1-20	4, 1
"	St. George	Oct. 3	1
"	Portland	Sept. 28	1
"	Brunswick	Oct. 1, 6	1, 2
Cumberland Co.	S. Portland	Oct. 6	several seen
"	Ocean Park	Sept. 23, 27, 28, 29 Oct. 1, 4, 6, 7, 15 Nov. 11	2, 2, 3, 2 2, 2, 2, 1, 1
"	Biddeford Pool	Sept. 26, Oct. 4, 11	1, 1, 1
"	Pine Point	Sept. 23	1
"	Cumberland Mills (inland)	Sept. 28, Oct. 6	1, 2 (injured)
"	Topsham (inland)	Oct. 5	1 dead
"	Westbrook (inland)	Sept. 28	1 dead
York Co.	York	Sept. 24	1
"	Biddeford (inland)	Nov. 7	1
"	Saco (inland)	Sept. 20, 21 Oct. 8, 12, 19	2, 1 1, 1, 1
"	Isles of Shoals Smuttynose Isl.	Oct. 9	1

Similarly, Mrs. Genevieve D. Webb, of Ocean Park (Cumberland Co.), who reported cuckoos "everywhere," kindly broke down her records. The number of localities turned out to be 8, and at Ocean Park, a total of 17 birds was seen from Sept. 23-Oct. 15 and Nov. 11. Mrs. Hendrickson was taken to a field at Oakland where at least 50 were in a weed field hunting caterpillars, and at Fairfield on the same day, Oct. 13, another person found over 50 in another weed field. From Oct. 3-5, Leslie Pearson found Petit Manan Island positively "crawling" with Yellow-billed Cuckoos and estimated over 100 birds on the island!

To sum up, in spite of the increase of summer residents this is more individual Yellow-billed Cuckoos in the State of Maine than in all the last eighty years added together! The late November dates clearly reflect the equally late records in Nova Scotia, but *when* the great mass of birds arrived, and *how*, we shall probably never know.

New Hampshire. Arrived in the Connecticut Lake section in *early October* (F. T. Scott). (Compare Quebec reports.) Only 4 September reports, 5 individuals after Sept. 20, at localities where they have recently been found nesting. Five October reports, Oct. 5-23, all at possible nesting localities. No satisfactory evidence of hurricane vagrants except the unprecedented late dates.

Vermont. One Sept. 29-Oct. 5 report (S. Londonderry). No conclusive evidence.

Massachusetts. *Berkshire Co.*, kindness of Mr. Bartlett Hendricks. 14 Yellow-bills from Sept. 26-Oct. 17 at 9 localities, including several "high up" in Savoy, and 4 after Hurricane Hazel on Oct. 16.

Connecticut Valley. "The extraordinary numbers begin right after Hurricane Edna, with one in Easthampton Sept. 12, next Sept. 15, and almost daily reports from Sept. 18 on, peak numbers Sept. 24 (4) and Sept. 26 (7)." (S. A. Eliot, Jr.) Unfortunately, also, in October, 21 birds, 12 dates, 12 localities, obviously not associated with Hurricane Edna or even Hurricane Hazel, but unprecedented, to Oct. 24.

Eastern Section. Reported from *every* county and *every* township, very few after Hurricane Carol (only 9 reports, Sept. 3-9), very few after Hurricane Edna (only 15 reports, Sept. 12-19), but a veritable deluge from Sept. 20-30, Oct. 1-31. In all, *sixty-four* September reports and *eighty-three* localities from Oct. 1-31! Over 103 birds reported in September and over 114 in October. In many cases it is not possible to get the exact count, as where the report reads "1-3 daily throughout October" and others say "good numbers" or "everywhere." As in Maine, the birds were in trouble or starving. Many were found dead, others were *picked up alive* on ground in parks or even city streets. Throughout the period it was routine to find dead birds on the road killed by cars, and in longer runs it was routine for people to race each other as to which saw the most smashed cuckoos on the road. The maximum was 5 in one day. Maximum counts are by no means as spectacular as for Maine: Martha's Vineyard, 9 on Sept. 24; Oct. 29, 1. Nantucket, Sept. 3, 8; Sept. 4, 5+, 11+, 12. Marblehead Neck, 1-4 daily, Sept. 18-30; Lynn, 3 on Sept. 24; southern Bristol Co., 5 in early October; Cape Ann, 6 on Oct. 4; Westport, 7 on Oct. 18; Newbury, 5 on Oct. 15; Nahant, 5 on Oct. 8. Particularly interesting are the figures for outer Cape Cod, here arranged in order, nearly 200 birds, more than *quadrupling* the total number of birds reported from Cape Cod from 1870 to 1953!

Sept. 17	Chatham, 1	"	5	Outer Cape, 13 + 3 dead
" 18	Chatham, 1	"	7	Chatham, 1, Eastham 3 dead
" 19	Monomoy, 2	"	9	Chatham, 2
" 25	Orleans and Eastham, 3 dead	"	12	Outer Cape, 31
" 27	Eastham, 6	"	13	Chathamport, "everywhere"
" 30	Osterville, 10 seen, 5 found dead in road	"	15	Orleans, 2
Oct. 2	Monomoy, 16 + 4 on outer Cape Cod. Warden Chandler tells me that from then on he averaged 10 per trip.	"	17	Chatham, 1
" 28	Chatham, 1	"	19	Chatham, 1 dead
" 31	Orleans, 2	"	20	Chatham, 1 dead
" 4	Chatham, 1	"	28	Chatham, 1, Orleans, 1
		"	30	Orleans, 1
		"	31	Orleans, 2
		Nov. 1	Chatham, 1	

Other late dates are Essex Co., Cape Ann, Andrews Point, 1 daily Nov. 1-4.

Rhode Island. Regular summer residents in fall to late September (R. C. Clement). September, 1954: 25 birds reported, 15 on Block Island, Sept. 25; 3 there on Oct. 9 and 1 on Oct. 8; Tiverton, 1 on Nov. 9.

Connecticut. Inadequate number of people reporting. Maximum 9 on Sept. 23 (Glastonbury), 1-3 daily throughout October.

New York. Enormous flight, mainly coastal, throughout October. In numbers on Fisher's Island in the Sound, many dead and weak birds picked up. At Orient Point, Long Island, the flight began on Sept. 23 and lasted through most of October; at times Roy Latham estimated 1000 cuckoos passing through each day, at least two thirds of the number Black-billed. Heavy flight

through Long Island, the last on Nov. 2. A total of 191 was reported, thanks to Mr. C. Nichols and Mr. Richard Ryan.

New Jersey. Tremendous flight down the coast of New Jersey, Sept. 29-mid-November.

The Black-billed Cuckoo is worth a passing comment as it, too, was notably numerous in New England, also seen starving and remained to exceptionally late dates. *Nova Scotia:* "Normally present, numerous late records suggesting they were brought by a storm, rather than originating in the province, a fact which can never be proved." Reported Oct. 1, 22-24 (H. F. Lewis). *Maine:* very few September reports, none in October. *Vermont:* to Oct. 3. *New Hampshire:* to Oct. 7. *Massachusetts:* Slightly more than usual in September, in all 27 localities about 45 birds. In October, 22 localities, over 31 birds, which is really extraordinary to Oct. 17 (Concord), 18 (Plum Island), and 21 (Millis). This, however, hardly prepares us for the rush of birds at Orient Point, Long Island.

To conclude, it is clearly impossible to explain the flood of cuckoos by any of the three hurricanes, as the bulk of migrants started long after two of them and well before the third. It would appear that many cuckoos were carried north of our territory, remained undetected, and the weakened survivors began migrating south at abnormally late dates.

Board Committee Appointments for 1955

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Enjoy the Outdoors in April

By RICHARD HEADSTROM

If you have had Chickadees about your house or garden during the winter months, note that they are now to be seen less often. Before long they will probably have disappeared altogether.

Observe how the red maples tint the woodland swamp a rich crimson. Note, too, that some of the flowers are a deep red, others yellowish. The former are the pistillate flowers; the latter the staminate.

Look for the wild ginger among the dead leaves of the woodland floor. It may take some time, but finding this curious flower is worth the effort.

While in the woods keep an ear open for the clucking of wood frogs, now in woodland pools.

Note that ladybird beetles may be seen with increasing frequency.

If you have Catbirds about your house or garden, keep them under daily observation. You may be rewarded by seeing them perform their courtship antics.

Note the countless pendulous tassels that ornament poplars and aspens.

In fields and along the roadside look for the flowers of the wild strawberry.

On a bright sunny day visit a ledge or rock pile for garter snakes. They may often be seen in large numbers sunning themselves.

Note the white butterfly that flies aimlessly about the field and meadow. This species, the cabbage butterfly and a major pest of garden crops, is of particular interest because it is one of the few imported insects of which we have been able to keep a complete record.

Visit a bush-bordered pond or stream and look for the Yellow Palm Warbler.

Observe how the unfolding blossoms of the elms invest the trees in a coppery mist.

In the shelter of evergreens look for the trailing arbutus. But do not pick this fast-disappearing wild flower nor advertise its whereabouts.

Note the fairly large wolf spiders as they run over the ground. They may best be seen at this time of year before the vegetation gets too dense. Occasionally one may be seen dragging a tiny, globular, parchmentlike affair — the egg case.

Watch the large bumblebees as they fly over field and meadow visiting early spring flowers. These bees are queens, the only survivors of last year's colonies. They fly about for a week or so gathering nectar and pollen before settling down to building a nest and rearing a new colony.

In the early morning listen for the trill of the first returning Chipping Sparrow.

This is the time of the year to become acquainted with the shadbush, whose silvery-white chandeliers are brilliantly white against a background of leafless trees.

On the branches of wild cherries, inspect the egg masses of the tent caterpillar for emerging caterpillars.

On your spring rambles keep an eye out for the early saxifrage. It is usually found among rocks on dry hillsides.

Listen for the peculiar whistle of the White-throated Sparrow.

Locate a brook with marsh marigolds. These bright yellow flowers provide one of the most beautiful sights of early spring.

Along the woodland border look for the dainty wood anemone.

Inspect a spring pool for what appear to be moving bits of dead leaves and plant stems. Fish one out and examine it. You will find it to be a hollow cylinder inhabited by a wormlike creature. The animal is a caddis worm, the larva of the caddis fly.

After a shower look for the glistening coprinus on covered stumps or the sponge mushroom (morel) in orchards and open woodlands. These are among the earliest of our mushrooms.

Visit a newly plowed field for Killdeer. The birds may be seen running over the ground in search of grubs and worms.

Young Conservationists Win Awards

At a special meeting sponsored by the Massachusetts Conservation Council at the Museum of Science on February 25, announcement was made of the young men and women who had been selected as leading conservationists of the Commonwealth for 1954. The selection had been made earlier by a special committee appointed by Governor Christian A. Herter, with Francis Sargent, Director of Marine Fisheries, as chairman, and including C. Russell Mason, Executive Director of the Massachusetts Audubon Society.

Faith Jackson, of Bourne, Massachusetts, sponsored by the 4-H Clubs, was declared the winner of an all-expense trip to Chicago, presented by the Izaak Walton League of America, to attend their annual convention, in which a special section is devoted to the discussion of conservation problems for youth. Miss Jackson has for several years been a leader in the conservation work of her region, including participation in the development of a wildlife sanctuary, planting of conifers for reforestation and prevention of soil erosion, the growing of maple seedlings, the raising of pheasants, and the raising and showing at county fairs of pure-bred sheep and beef cattle. While engaged in these and other activities, Miss Jackson has also maintained a straight "A" average in her scholastic work.

Torrey Jackson, of Marblehead, well-known to Audubon members through his presentations of fine kodachromes of birds at the annual meetings of the past three years, was awarded the place of first alternate. Also, at the invitation of the committee, he presented a half-hour program of his pictures at the Museum of Science gathering. His conservation work has included, not only the taking of wildlife pictures, from the Gaspé to the Virginia capes, but the showing of them to many groups in the interest of developing good conservation attitudes, and he has also provided at Ipswich River Wildlife Sanctuary many nesting boxes for owls, in an attempt to prevent the decline of this group of birds.

David Sargent, of Beverly, an active Audubon member and an instructor at Wildwood Camp for the past two seasons, was the 1953 winner of this award and came from the University of Massachusetts, where he is now a student, to extend greetings to the young people who had made such a fine record during the past year, and to express the wish that they might continue their efforts in the conservation field.

Airborne from Gulf to Gulf

April 16 - 18, 1954

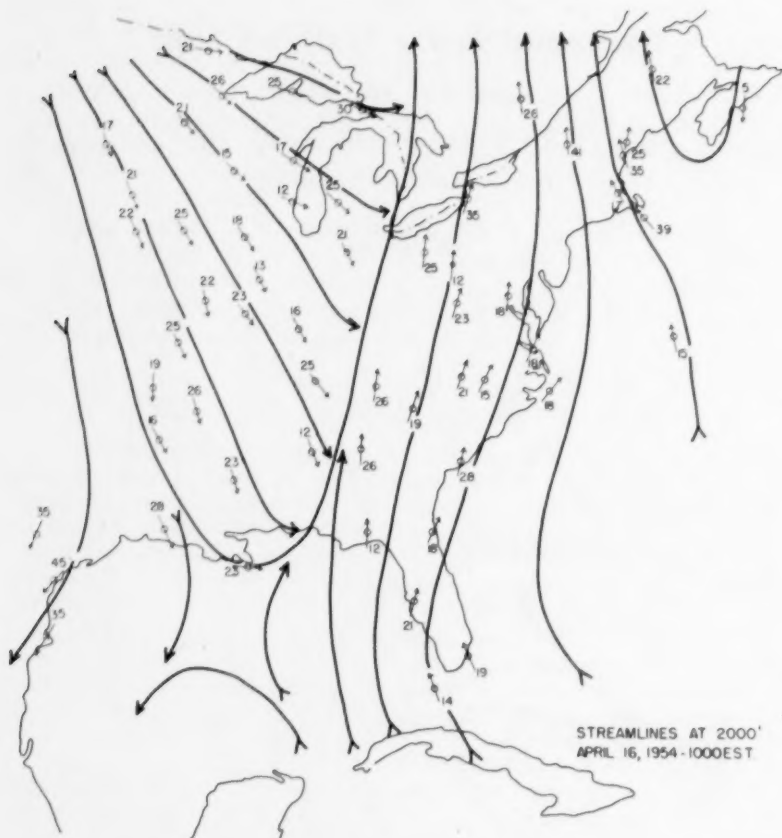
By AARON MOORE BAGG

(Continued from March Bulletin)



1. Successive positions of the cold front of April 15-18, 1954. Positions are identified by appropriate Eastern Standard Times.

This brings us to April 16, which is the key date in this study. A vigorous northwesterly flow (i.e., from the northwest) of cold continental polar air was pushing down against the western flank of the tropical air mass, crowding it eastward, so that it occupied less and less of the southeastern United States. At the same time, the pressure-gradient within the tropical air was steepening, with a strong southwesterly flow developing over the northeastern Gulf and adjacent States.

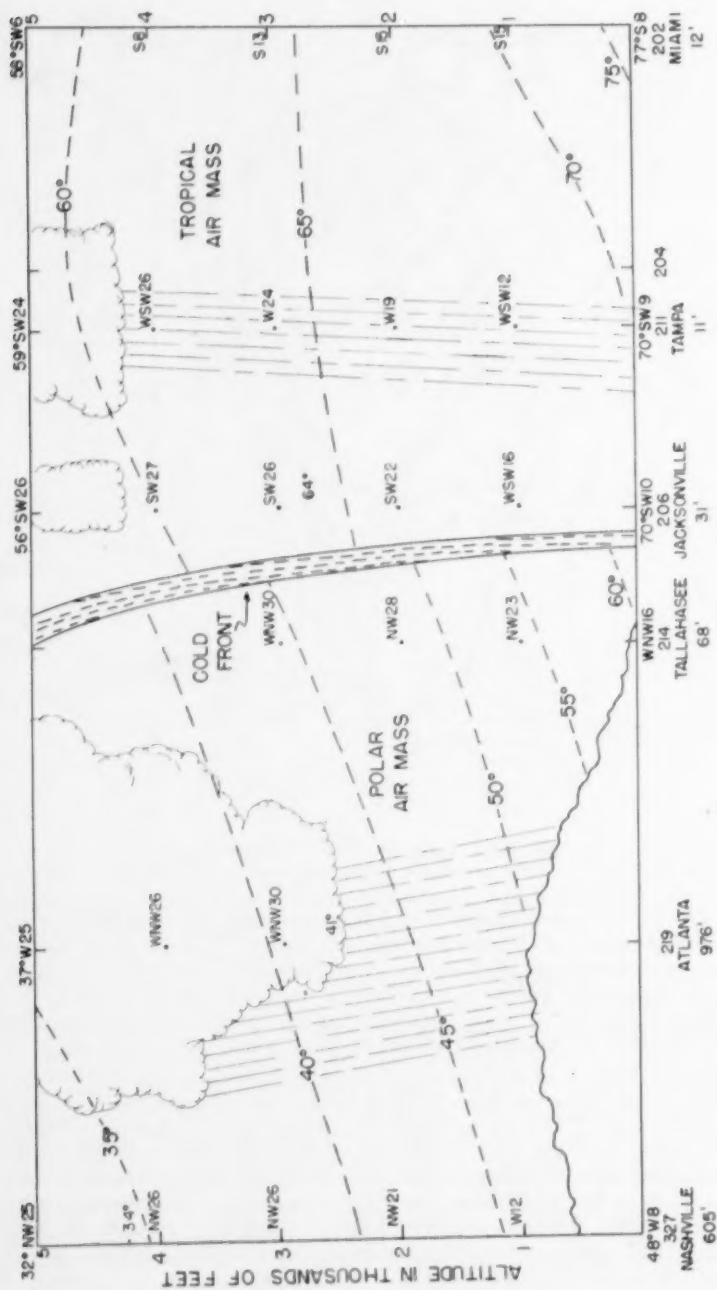


2. Streamlines at 2000 feet for 1000 EST April 16, 1954. Observed wind directions are indicated by arrows centered at each reporting station. The wind speed in knots is indicated adjacent to each arrow.

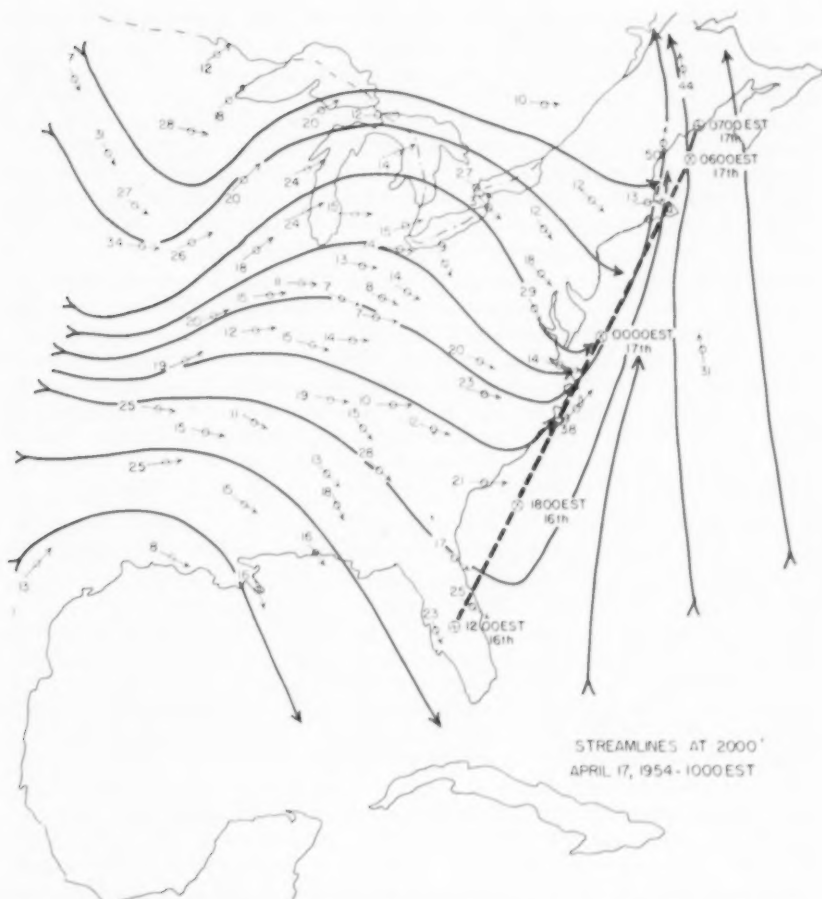
Successive 12-hourly positions of the cold front, marking the leading edge of the northwesterly flow of cold air, are shown on the accompanying map for April 15-18. The maps depicting the wind flow at an elevation of 2000 feet at 1000 E.S.T. and 2200 E.S.T. on April 16 and 1000 E.S.T. on April 17 indicate the considerable strength of the south-southwesterly flow at hypothetical flight-levels in the tropical air. The abruptness of the change of wind and temperature associated with the cold front is attested by these maps and by the vertical cross-section chart along a line from Nashville to Miami at 2200 E.S.T. on the 16th.

If we assume that numbers of Indigo Buntings took off northward from Yucatan during the night of April 15-16, then it seems clear that they not only enjoyed a fast trans-Gulf flight but also were increasingly diverted eastward as they came within the strengthening southwesterly flow over the northeast-

VERTICAL CROSS-SECTION NASHVILLE TO MIAMI



APRIL 16, 1954 2200 E. S. T.



4. Streamlines for 1000 EST April 17, 1954. Hypothetical track, at 2000 feet, for bird arriving in Washington County, Maine, is indicated by the heavy dashed line. Positions of the bird at various times are indicated.



5. Vertical cross-section along line from Nashville to Miami at 2200 EST April 16, 1954. Observed wind directions, speeds in knots, and temperatures in degrees Fahrenheit are indicated above each reporting station. Lines of equal temperature (isotherms) for every 5 degrees F. are shown as light dashed lines. A schematic cloud portrayal is reconstructed from surface observations and relative humidities aloft reported by radiosonde. The cold front at this time lies a short distance northwest of Jacksonville and is moving from left to right across the section. Scattered showers are falling in the tropical air ahead of the front, while rain is falling within the cold air some distance to the rear of the front. Data are given for levels from the surface to 5000 feet.

A significant, if not *key*, piece of evidence is found in Frederick Hebard's report that, on April 16 or 17, an unprecedented number of Indigo Buntings appeared, a week earlier than usual, at Coleraine Plantation, Georgia. This plantation includes parts of Charlton and Camden Counties, in southeastern Georgia. The striking point about these buntings is that they appeared in a location situated along the approximate trend of the main southwest-to-northeast tropical airflow, from the Gulf to the Atlantic, on April 16. That is, Coleraine lies along the flight-course which incoming trans-Gulf Indigo Buntings might be expected to follow in the afternoon, particularly, of April 16, and up until the arrival of the cold front around midnight of April 16-17.

In view of all this, the critical question is, What would be the behavior, on reaching the Gulf coast of Florida, of Indigo Buntings which were migrating over the extreme northeastern Gulf in the strong southwesterly tropical airflow of April 16? Would they land under flight-conditions identical with those under which, elsewhere in the Gulf States, they ride the favorable airflow to inland landings? The most logical answer would seem to be that some, at least, of the buntings would continue to fly with the tropical airflow. But, if they did so in the vicinity of northern Florida on April 16, it would not have been long before they crossed overland from the Gulf to the Atlantic.

Mr. Fred Sanders, of the Department of Meteorology, Massachusetts Institute of Technology, very kindly has contributed the following paragraph:

"A hypothetical track has been reconstructed for the bird arriving in Washington County, Maine, around 0700 E.S.T. April 17th, and is shown as a heavily dashed line on the 2000-foot map for 1000 E.S.T. of the 17th. In the reconstruction of the track an appropriate tail-wind, derived from an analysis of the 2000-foot charts, was added to the 20-knot airspeed of the bird. An examination of the presumed path indicates that this tail-wind was of appreciable strength, about 50 knots along most of the Atlantic seaboard. Thus the bird appears to have passed over the Florida peninsula at about noon of the 16th and flown thence to Maine in about nineteen hours! A comparison of the hypothetical track and the streamlines of the tropical airflow indicates that the track of the bird must have been about 10 degrees to the right of the direction of the flow at 2000 feet, rather than directly downwind. A possible explanation of this circumstance is that the heading of the bird was about 40 degrees to the right of the airstream. Alternatively, the bird may have flown at an altitude near 4000 feet where the winds in the tropical air had veered about 10 degrees from their direction at the lower level."

(N.B. A knot, or nautical mile, is 6080 feet — or approximately equivalent to 1.152 statute miles, which is 5280 feet).

While the first buntings hypothetically to overfly northern Florida would follow a course passing over the Hatteras region, it seems possible that birds subsequently involved in the tropical airflow may have traveled via an over-water route passing east of Cape Hatteras. Whatever the case, the airflow obviously carried the buntings to eventual landings in the "land-targets" provided by the trend of the Atlantic coast east and northeast of New York City. The birds appeared in such coastal areas in phase with the tropical airflow's occupancy of the latter. Thus, the Cape Cod region remained longer in the tropical air on April 17 than Long Island did; consequently, it intercepted far more Indigo Buntings. Moreover, Shelburne County, Nova Scotia, alone, reported more buntings than did all of Long Island.

Let us now consider some of the other stragglers which appeared in the coastal Northeast as a result of this tropical airflow, for they have a significant bearing on the problem. As so often happens in these spring coastal situations, the stragglers included an Eastern Glossy Ibis, an adult being seen by the writer on Block Island, R.I., April 19. The range of this bird in North America is almost entirely restricted to the Florida peninsula, within which some individuals tend to move northward from winter quarters at Lake Okeechobee during a five-week period beginning around March 20. Thus, we are given the strong likelihood that the Glossy Ibis seen on April 19 had become involved in the tropical airflow over Florida. The manner of its involvement is suggested by the observation, by Mrs. Roscoe Hauser, Jr., of an American Egret being blown eastward by the strong southwesterlies over Gainesville, Florida, about 5 P.M. on our critical date, April 16.

The trans-Gulf complexion of our spring coastal straggler passerines is pointed up by the fact that a Worm-eating Warbler was seen at Quogue, L.I., on April 17-18, 1954 (J. J. Elliott), while a Hooded Warbler was seen at Cribhaven, Maine, April 18 (Christopher M. Packard).

More significant than these, however, were the following observations: a Rose-breasted Grosbeak seen on April 18 at North East Harbor, Nova Scotia (Harrison F. Lewis); another Rose-breasted Grosbeak, April 19, Cumberland Mills, Maine (Packard); and a Tennessee Warbler seen April 20 at Falmouth, Maine (Packard). The northeastern observations of these birds, during April 18-20, assume significance when we read (in Dr. Henry M. Stevenson's *Audubon Field Notes* report on the 1954 spring season in the Florida Region) that "the Easter cold front brought the rare Tennessee Warbler to Alligator Point and St. Marks Light, April 19, and Sarasota, April 18 to 21" and that "Rose-breasted Grosbeaks were found at Alligator Point, April 19." Here, again, we have the coincidence of a particular species appearing suddenly and simultaneously on the Gulf coast of Florida and in coastal areas northeast of New York City.

Let us now travel southward from New England and Long Island, considering first-for-1954 observations of the Indigo Bunting in the Middle and South Atlantic States.

Excluding Long Island, the New York City region's first bunting was a male seen April 25 in Larchmont (Eugene Eisenmann). Floyd Wolfarth reports that one appeared on April 15 ("approximately") at Mt. Lakes, N.J., while another was seen at Montclair, N.J., on the 29th. First-observations in eastern Pennsylvania were: Hawk Mountain, April 22 (Maurice Broun); Montgomery County, April 29 (J. d'Arcy Northwood); and Philadelphia, April 30 (Quentin Kramer).

In their *Audubon Field Notes* report on the Middle Atlantic Coast region, Julian Potter and J. J. Murray stated: "The early flight of Indigo Buntings through New England in mid-April missed Maryland and Virginia." However, Dr. Murray writes that he saw an Indigo Bunting at Lexington, Virginia, on April 18 — after which, no more until the normal arrival-time in the first week of May. According to Chandler S. Robbins, the first observations in Maryland were: April 21, Gibson Island; April 24, Baltimore; April 26, Sandy Point; April 27, Washington County; April 28, Laurel and Annapolis; April 29, Glen Echo.

Despite a considerable correspondence with observers in the general vicinities of Albemarle and Pamlico Sounds in extreme eastern North Carolina, the writer has obtained no records of Indigo Buntings which can be correlated with the northeastern birds. While one was seen at Wilmington, N.C., on April 2, Mrs. Edna Appleberry reports that no unusual numbers were present in the Wilmington area to account for the April 17-18 influx in New England. Indeed, B. R. Chamberlain's *Audubon Field Notes* report on the 1954 spring season in the Carolinas contains the remark that "Indigo Buntings, slow to arrive in any numbers this spring, were at Greenville, S.C., April 25, and at North Wilkesboro, N.C., April 30." J. L. Stephens first recorded the species at Lumberton, N.C., April 22.

In the above-mentioned report, Chamberlain has suggested that the April 17 wind-shift from strong southerly to strong westerly, over the Carolina coast, may have been responsible for the appearance in New England of such migrants as the Indigo Buntings. However, the 1:30 A.M., U.S.W.B. map for April 17 shows that, at that hour, the cold frontal wind-shift line still lay about 100 miles west of Wilmington, N.C., and 200 miles west of Hatteras. At 1:30 A.M. both stations had southerly surface winds, blowing toward the Chesapeake Bay area. The significance of this situation is that an Indigo Bunting could not have arrived in Millbridge, Maine, to be seen by 7 A.M. on April 17, if he had to wait to be blown off the North Carolina coast by strong westerlies which did not reach that coast until after 1:30 A.M. on the same date.

Maurice Brooks's *Audubon Field Notes* report on the 1954 spring season in the Appalachian region mentions the "extraordinarily late arrival of such species as Indigo Bunting. . . ."

In the Charleston, S.C., region, where the Indigo Bunting normally arrives about April 17, E. Milby Burton writes that no buntings were reported in mid-April, 1954, and that observers were unanimous in reporting few, if any, prior to the week of May 10. At Beaufort, S.C., Ernest DeCamps saw no buntings during the spring of 1954.

In Georgia, Dr. J. Fred Denton writes that the first bunting seen by the Augusta Bird Club was a single male on April 19, on which date, too, the species was first recorded at Kingsport, Tenn., by Mrs. Robert M. Switzer. For the Savannah region, Ivan Tomkins, Lewis Pyle, and Gilbert Rossignol agree in reporting no April, 1954, buntings. The same report comes from Richard Kuerzi, of St. Marys, Ga., and S. C. Witter, of Kingsland. The writer has been unable to obtain any reports of buntings in the vicinity of Jacksonville, Florida, and C. H. Ekdahl writes that he knows of none appearing in the Daytona Beach area. Neither Donald J. Nicholson nor Robert J. Longstreet knew of any spring-1954 Indigo Buntings in the vicinities of Orlando and DeLand, Fla., respectively.

The picture to be gained is that Indigo Buntings were scarce or lacking in Atlantic coastal areas of the southeastern United States in April, 1954, and that the arrival of these buntings in the Northeast on April 17-18 did not result from flights beginning in such areas. This is consistent with the fact that two of the most regular April stragglers in the coastal Northeast over the years, the Scarlet Tanager and the Rose-breasted Grosbeak, are extremely rare birds in Atlantic coastal areas of Florida, Georgia, and the Carolinas. Conversely, so abundant a spring migrant in such areas as the Prairie Warbler is not among the regular spring stragglers in the coastal Northeast — which is

strange if it is a simple matter of birds being blown off the southeastern United States coast. Indeed, one is struck by the fact that our spring straggler passerines in the coastal Northeast are Central and South American winterers which are also trans-Gulf migrants, while the West Indian winterers and transients do not tend to appear among such stragglers. It may be that the migratory flight-behavior of the trans-Gulf species has developed along different lines from that of the West Indian migrants, with a greater tendency to ride the favorable airflows, as well as to fly at higher levels and to remain airborne longer.

While one must recognize the possibility that the April 17-18 Indigo Buntings from Long Island to Nova Scotia were birds which had arrived in the Gulf States during the first two weeks of April, 1954, this "explanation" does not seem a likely one on the basis of what is to be learned from a study of the occurrence of spring coastal stragglers in the Northeast over the years. Even less probable is the suggestion that the buntings landed in the Gulf States on April 14 or 15 and then resumed migration almost immediately. For there is considerable evidence that buntings tend to tarry a few days after coming in from a trans-Gulf flight, probably to restore deposits of fat expended in flight, as Wolfson suggests to be the case with migrant White-throated Sparrows.

When one considers all aspects of the situation, particularly including the April 17 Florida evidence of heavy trans-Gulf migration of Indigo Buntings, one is led toward the conclusion that the April 17-18, 1954, buntings in the northeastern coastal areas were trans-Gulf migrants which flew nonstop in the strong maritime tropical airflow.

Dr. Wolfson has informed the writer that he believes a fat Indigo Bunting could remain airborne, without difficulty, for some 36 hours, provided he did not struggle against head winds. Earlier in this paper, Mr. Sanders was quoted to the effect that the bunting, whose hypothetical track he analyzed, would have flown from Florida to Maine in about 19 hours. This is assuming that the bird flew at an altitude of 2000-4000 feet and that the Indigo Bunting has an air speed of about 20 knots (approximately 23 m.p.h.). If this bird flew from Florida to Maine in 19 hours, it could have taken 17 hours for the trans-Gulf, Yucatan-to-Florida passage and still make the through flight from Yucatan to Maine in 36 hours.

During the past year, Kenneth Williamson, Director of the Fair Isle Bird Observatory in Scotland, has shown convincingly that the most logical explanation of the occurrence of New World land-birds in the British Isles is that they flew the Atlantic nonstop in the fast westerly airstreams prevailing along the North Atlantic storm track. Moreover, in discussing the autumn migration of the Greenland Wheatear, in the *Ibis* for April, 1953, D. W. Snow has written: "The conclusion seems inescapable that crossings are regularly made from the southeast coast of Greenland direct to the west coast of Europe, from the British Isles to the Iberian peninsula, distances of from 1500 to 2000 miles." While these hypotheses of Williamson and Snow are not proved, they are cited to show that evidence is accumulating to make careful scientists conclude that some passerine birds can and do make much longer flights than we had thought possible.

This study has been made possible, obviously, through the kind co-operation of many observers. I am indeed grateful for their generosity and patience in helping me. I also wish to acknowledge with thanks the many data made available to me by Chandler S. Robbins, of the United States Fish and Wild-

life Service. These include arrival dates obtained through the co-operative study initiated by James H. Zimmerman, as well as other information from the files of the Service. Finally, sincere thanks are due the following for their advice and suggestions: Ethan A. Murphy and Fred Sanders, of the Department of Meteorology, Massachusetts Institute of Technology; Dr. Charles H. Blake, Ludlow Griscom, Dr. W. W. H. Gunn, Dr. George H. Lowery, Jr., Dr. Olin Sewall Pettingill, Jr., Henry M. Stevenson, and Dr. Albert Wolfson.

Observe Audubon Week

AUDUBON WEEK will be observed this year May 1-7, with many activities scheduled throughout the State. The hundreds of grade school classes in conservation and natural science conducted by Audubon teachers will include bird trips and visits to wildlife sanctuaries in their week's program. More than one hundred Audubon members have agreed to lead field trips on Saturday, May 7, and on the same day the six Audubon sanctuaries with resident directors will hold Open House. Radio and news columnists will co-operate in encouraging conservation and natural science during this period. As in the past several years, noon walks, particularly for business people, will be scheduled in the Boston Public Garden to observe the birds arriving at this interesting season.

Brookline Bird Club Trips

Open to Members of the Massachusetts Audubon Society

April 2, early morning trip. Concord U.S. Wildlife Refuge. Warren Harrington, BLuehills 8-5567. All-day trip to Sudbury, Wayside Inn, and vicinity. Miss Caldwell.

April 3, afternoon. Wayland. Miss Riggs, UNiversity 4-4229.

April 9, all day. Concord U.S. Wildlife Refuge and Nine Acre Corner. Mrs. Hines, CRystal 9-0383. Afternoon, Mount Auburn to Fresh Pond. Miss Cushman, Blgelow 4-7613.

April 16, all day. Newburyport and vicinity. Mrs. Argue, KEmore 6-3604. Afternoon, Ipswich River Sanctuary. Mrs. Boot, LYnn 8-0257.

April 19, all day. Ipswich and Plum Island. Mr. Goodridge, JEfferson 5-5278.

April 23, all day. Weston to Lincoln. Mr. Talbot. Afternoon, Devereux to Marblehead Neck Sanctuary. Miss Thisland, LYnn 3-3128.

April 26, evening walk. Arlington Heights to Rock Meadow. Miss Lawson, CApiitol 7-5618.

April 30, all day. Newburyport and vicinity. Mr. Vaughan, MEIrose 4-3265. Afternoon, Fay Estate. Miss Jewell, LYnn 2-0371.

May 1, afternoon. Harold Parker Forest. Mr. Wardwell, SToneham 6-2174-W.

May 3, evening walk. Horn Pond, Woburn. Mrs. Newman, SToneham 6-0812-M.

May 4, morning walk. Boston Public Garden. Mrs. Argue, KEmore 6-3604.

May 6, morning walk. Boston Fenway. Miss Hanson, COMmonwealth 6-1595.

May 7, all day. Auto trip to Mount Auburn, Nahant, and Marblehead Neck. Mr. Lewis, CRystal 9-1355-R. Afternoon, Nahant. Mrs. Boot, LYnn 8-0257.

Birding Summary for 1954

BY BENNETT KEENAN

With the constantly increasing numbers of active ornithologists in the field, and with the frequency of their field trips prompted by their intense interest in the sport, comparison of one year's lists of birds with those for previous years has a doubtful significance. For many years the total number of species reported has steadily grown, but the question arises whether this perhaps proves only that the chances of a straggler escaping detection are steadily decreasing.

This line of thought leads into the larger question: What is the significance of a year's list, anyway? More basic yet, What is birding, and does it have any scientific importance, or any meaning at all outside the subjective pleasure it brings the birder?

Time Magazine has recently carried some articles on birding — under the heading of "Sports," not "Science." Most of us cheerfully agree: Field identification and the consequent compiling of an annual list is a sport, a hobby, indulged in for the pleasure of seeing birds and for the collateral benefits of fresh air and a little walking. There is a scientific approach to ornithology, but it is along the barrel of a collecting gun and through the tray of skins. The distinction between the two fields is sharp, with very little overlapping (The careful studies of migration routes, or the attempts at migration "moon-watching" are cases.). The year's list, then, means nothing by itself, except as a sketchy diary of pleasurable moments. In comparison with last year's list, it is an indicator of progress in learning the field marks of birds (except to the extent that it indicates more active birding). Comparison of one person's list with another's likewise indicates the relative degree of skill and activity.

There is, however, some value to lists in the aggregate. Allowing for the extent to which they merely show more, and more active, observers, they do serve to indicate changing conditions in bird life. That one observer reports a Dickcissel this year for the first time in his life proves only that he had an exciting few minutes, but the steadily increasing number of reports over the years demonstrates the gradual incursion of this species into Massachusetts, as is shown graphically in the *Records of New England Birds*.

Obviously, to have this value, the reports must be accurate — they must not be careful opinions, or educated guesses; they must be facts beyond question. For this reason, the seasoned birder maintains a "double standard" — and a wistful "probable" list. To report a bird for the *Records*, the birder should be thoroughly familiar with the bird, see it under adequate conditions, and, where the bird is a rarity, take thorough field notes *on the spot*, not later in the day with an inevitably credulous reading of a description of what he hopes he saw should have looked like. Even the most conservative birder puts birds on his personal list that do not meet these requirements. It is one thing to be perfectly confident yourself of what you saw; it is quite another to ask someone else to base a conclusion on something reported for the *Records*. Our concern in this Summary is personal lists.

The reason for this double standard is the enormous extent to which sight identification relies on probability. The great William Brewster used to delight in confounding a Nuttall Club member presumptuous enough to re-

port a sight identification as positive. He would not comment on the sight record, but at the next meeting the offender would be confronted with a tray of skins and asked to identify the bird he saw. It nearly always resulted in an embarrassed retreat by the member. The other side of the same coin is a demonstration such as I was fortunate enough to witness a few years ago. Ludlow Griscom was responsible for it, with the connivance of Oliver Austin, Jr., James Greenway, and a few other such plotters. The Nuttall Club meeting on the evening in question was devoted to identification of museum specimens. There were, as I remember, twenty-five mounted birds, which we all were free to pick up, measure, discuss, and otherwise identify. We each made a list, and at the end compared them with the actual identification. The twenty-five were common birds — Robin, Common Tern, Horned Lark, etc. — and the highest score was five correct out of twenty-five. These skins had the most unbelievable plumages, bill color, and measurements you could imagine!

That little anecdote is merely to substantiate my statement that sight identification is a matter of probability. You see a Robin fly over — how can you say it was not a Varied Thrush? You see a Ruff in the fall — can you be sure it is not a Yellow-legs with freakish coloration? You can — only by collecting it. In these hypothetical cases, however, you are probably right. How many Robins are there locally for every Varied Thrush? A prodigious number. But as the rarity increases, the probabilities get into line. How many Ruffs are there for every freakish Yellow-legs? Not so many. How many Noddy Terns are there for every melanotic Common Tern? Hmmm.

The third, or "if only I had had a better look" list, is worth keeping for one good reason; most of the pleasure of seeing a bird well for the first time is destroyed by the admission to ourselves that obviously we were mistaken when we thought we saw it before. I have come to that uncomfortable conclusion often enough in nearly twenty years of birding to want to spare others the experience. To get a new bird on your list is fun, and it is what we are all trying to do, but to get it on there when it doesn't belong there is like counting only the good shots in your golf score.

JANUARY gave us a taste of old-fashioned winters, and had the predictable effect on wintering stragglers. Early in the month two Wood Ducks were in Jamaica Pond, Killdeer and Baltimore Orioles were reported from various locations, and two Phoebe were found. Numbers of such birds dwindled as the month progressed. Waterfowl were here in unusual numbers, and good counts of winter finches were made, with Evening Grosbeaks and Pine Siskins predominating. Among the rarities for the month were the Blue Goose at Plum Island, a Bullock's Oriole at Marblehead, and a Western Tanager and a Black-headed Grosbeak at Gloucester. Perhaps the rarest of all was a European Tufted Duck at Newburyport that survived a hail of collectors' gunfire with the durability of the Lone Ranger.

FEBRUARY reverted to the mild temperatures of December and previous winters, and the real spring migration began abnormally early. Bluebirds, Red-wings, Killdeer, and Mourning Doves arrived in numbers about February 20, and a Tree Swallow was reported from South Hanson on the 23th (Fox). Winter birds were not impressed, however, and 4 Harlequin Ducks, remarkable numbers of white-winged gulls (particularly Iceland), over 30 Snowy Owls, and good numbers of winter finches were found. A Golden Eagle, a Yellow Rail, and a Henslow's Sparrow highlighted the month. The Blue

Goose, Bullock's Oriole, Black-headed Grosbeak and Tufted Duck remained from January.

MARCH was a disappointment in most respects. Appetites sharpened by the early migration in February were whetted by the mildness of the first week and the arrival of Snipe on the 6th, a Brown Thrasher on the 7th, and a Swamp Sparrow on the 10th (Murray). Then the weather turned cold, and the proverbial lion held sway for the rest of the month. There was not any particularly good migration wave, and rarities were largely limited to hold-overs from midwinter and a few extraordinary dates for common birds — a Black-bellied Plover and a Turnstone on March 3 (Crompton) and a Sapsucker on the 31st. And then the geese came. Canadas were found in great flocks: over 1,000 at Newburyport, 200 at Springfield. A Blue Goose that had wintered on Plum Island was joined by another on the 30th. The flight of Snow Geese was one of the greatest in history, with 1,000 at Newburyport and flocks of up to 600 being found throughout the State.

APRIL. The flight of geese continued through early April, with even more reported than in March. The hawk migration went along well, with 400 Broad-winged Hawks passing Mount Tom on the 19th. As the weather warmed from the unseasonable cold on the 5th, the birding improved, with rarities rather than waves of migrants keynoting. A Bullock's Oriole was banded in Osterville on the 24th while the Marblehead bird had stayed until the 15th. A White-fronted Goose and four Blue Geese were in Newburyport. The herons carried off the honors, however: a Yellow-crowned Night Heron in Sudbury on the 17th (Wiggin), a Snowy Egret on Nantucket (Andrews), and, most dramatic of all, a Cattle Egret in Newbury for five days!

MAY was a month of perfectly dreadful weather. Boston had over 13½ inches of rain, the largest monthly total on record. As might be expected, temperatures ran well below normal. Birding was better in the Connecticut Valley than on the coast, but it wasn't very good anywhere. With unconscious humor the Weather Bureau offered the comment that rainfall was most frequent from the 2nd to the 12th and from the 15th to the 22nd. It is cold comfort to be told that the weather on the 13th and 14th was not quite so miserable as during the rest of the first three weeks.

A surprising number of good birds were reported. Warblers are always the focal point of May birding, and there were three Prothonotary, three Worm-eating, two Yellow-throated, four Hooded, a Cerulean (Kieran and Nagler), and even a Lawrence's (Bailey) reported from Massachusetts. The shore bird flight was unusually good. There were three Golden Plover at Newburyport on the 23rd (Whittles), 500 Knot at Monomoy on the 31st, 10 Pectoral Sandpipers at East Gloucester on the 26th (Jodrey), and 35 White-rumped Sandpipers at Newburyport on the 27th (Wiggin and Keenan). Miss Snyder found a Curlew Sandpiper and a Western Sandpiper at Plum Island. A goodly number of winter birds was reported — five Red-throated Loons at Plum Island, three Harlequin Duck at Manchester (Burnett), three Iceland Gulls at Plum Island on the 2nd (Freeland), and the second and third reports for 1954 of Red Crossbills — two in Marblehead on the 19th (Snyder) and two in Andover on the 25th (Beattie). The most spectacular bird for May was the White-winged Black Tern — Dr. May found two in Scituate on the 25th.

JUNE brought the usual hiatus in birding — perhaps because exhausted birders could keep up the pace no longer. The migration continued well into

the month, and a few really good birds were discovered. There were two Black-necked Stilts on Martha's Vineyard (Bigelow), a Glossy Ibis at Plum Island from the 20th on, White-eyed Vireos in Marshfield, and Evening Grosbeaks in Lunenburg on the 23rd (Hayes). On the whole, however, the month preserved its traditional quiet.

JULY was pleasantly cool with only brief periods of real summer heat. The shore bird migration began a little early. Mrs. deWindt found a Ruff at Newbury on the 20th, while the Nauset and Monomoy beaches were spectacular, with four Marbled Godwits, 33 Hudsonian Godwits, a Royal Tern, and a Glaucous Gull. New breeding records for Massachusetts were established for American Egret and Hooded Warbler, and Oscar Root reported 20 pairs of Grasshopper Sparrows nesting at North Andover. A Red Crossbill was banded in Groton. The Plum Island Glossy Ibis remained through the first week of the month, and the Chat nesting in Newbury remained all through July.

AUGUST was another cool month. Ornithological features were mostly of three kinds: herons, shore birds, and hurricane-battered strays. A Snowy Egret was found in South Dartmouth, and a Louisiana Heron at South Hanson. A Sabine's Gull showed up at Nauset, and a Franklin's Gull at Marshfield on the 22nd. A Gull-billed Tern was reported at Monomoy on the 7th. Highlights of the August shore bird migration were two Buff-breasted Sandpipers at Newbury and a Ruff at Nantucket on August 10.

It is difficult for an ornithologist to discuss a hurricane. We are all conscious of the fearful destruction wrought by a storm of this intensity and feel the terror and compassion felt by all who have seen its effects. We are, however, nearly unique in the respect that we are aware of a bright side; in brief, a hurricane is not the proverbial ill wind, for it blows good to us.

Hurricane Carol hit Massachusetts on August 31, and its ornithological effects were apparent for two weeks. Hurricane Carol's aftermath was totally different from Hurricane Edna's. The former was over the water until it struck New England, while the latter touched land in North Carolina on the way up. Hurricane Carol's center passed to the west of Boston, while those on the Audubon Cape Campout will testify that the eye of Hurricane Edna passed over the Chatham Town Hall. The result of these factors (or of some yet undiscovered ones) was that Hurricane Carol produced some superb water birds, while Hurricane Edna's violent northwest winds drove what water birds there were out to sea and in their place left battered but beautiful land birds.

Hurricane Carol left a Cory's Shearwater at Gloucester, a Leach's Petrel at Lincoln, a Wilson's Petrel at Cambridge (and 625 more off Provincetown), a Ruff at Nauset, two Gull-billed Terns, two Common Terns at Stow and 400 at Andover, Sooty Tern at Andover and Wayland, Royal Terns at a half-dozen spots, a Cabot's Tern at Nauset, flocks of Black Skimmers at many places, and a Noddy Tern and an Oyster-catcher at Nantucket. These were only some of the records; sea birds of all kinds were reported from everywhere. Most of these stragglers vanished within a week. The only remarkable land birds to appear immediately following Hurricane Carol were the Cerulean Warbler and the Kentucky Warbler off Fairhaven (Baird), one other Kentucky Warbler, and a Summer Tanager.

Hurricane Edna was an entirely different story. There were a few water birds; a Sabine's Gull and a Gull-billed Tern at Monomoy on the 19th, a

Royal Tern at Wollaston, and good flocks of Skimmers, but the land birding! The very first bird I saw on the day after the storm was a Yellow-throated Warbler, and the second one was a Prothonotary Warbler! The Cape Camp-out group had, in addition to these (and there were 4 of the former and 3 of the latter), Lincoln's Sparrow, 10 Hooded Warblers, Blue-winged Warbler, and a Blue Grosbeak. There were 30 Summer Tanagers in Needham, a Kentucky Warbler in Chatham, and a Yellow-headed Blackbird at Monomoy.

There was some ornithological news in September not connected with either hurricane, but not much. Turkey Vultures bred in Massachusetts for the first known record. A Wheatear was seen in Chatham by Howard Rich, and a Snow Bunting at Monomoy on the 19th. Truly remarkable numbers of Yellow-bellied Sapsuckers and Yellow-billed Cuckoos invaded the State as the month ended.

OCTOBER got back to normal and was a good month for both weather and birds. The migration of ducks was gratifying, and the same is true for warblers. There were twenty-seven species of ducks, including 7 Canvas-backs and five Shovellers in Newburyport. The shore bird results were good — Buff-breasted Sandpiper on the 2nd (Stricklands), a Hudsonian Curlew on the 31st (Elliott), Stilt Sandpipers, and both Godwits. There were 26 species of warblers. Winter birds began arriving: Old-squaws, Eider, Purple Sandpipers, and winter finches — particularly Pine Grosbeaks. Nine Acadian Chickadees were found, a Couch's Kingbird was in Duxbury, and a Vermilion Flycatcher was found on Plum Island on the 22nd (Mrs. J. Kellogg, Mrs. R. Chute).

NOVEMBER saw winter finally arrive, and with it the winter birds, even though the latter part of the month had above-normal temperatures. The common sea ducks, the Alcids, and the winter finches began to drift down, generally in small numbers, except for an enormous flock of sea ducks off Monomoy on the 11th, and really high counts of Pine Grosbeaks. The migration wound up with some good finds: 450 Green-winged Teal at Newburyport, two Golden Plover at Gloucester on the 27th (Stricklands), a Winter Wren at Marblehead on the 23rd, Hooded and Canada Warblers, and two Indigo Buntings. The month did very well with rarities — a Swainson's Hawk from Martha's Vineyard, an Arctic Three-toed Woodpecker found dead in Weston, four Arkansas Kingbirds in Osterville, a Yellow-headed Blackbird in Orleans, a Western Tanager in Fall River and another in Gloucester, and, to top it all off, a Canada Jay named Cyrus in Orange!

DECEMBER reminded us rudely that we had had a wet spring and two hurricanes: the scarcity of food resulting from these phenomena meant a scarcity of birds. It is probably safe to say that only the absence of any prolonged snow cover and of really cold weather enabled us to have any decent birding at all. As might be expected, strays were affected less by these poor conditions than the regular winter visitors. Yellow Rails in Barnstable and Chatham were a surprise, as was a Cape May Warbler in Duxbury. A Bullock's Oriole was found in South Hadley Falls and there were no fewer than three Black-headed Grosbeaks in the State. There were four reports of Barrow's Golden-eye, up to five European Black-headed Gulls at Newburyport, and a good flight of Alcids, including an Atlantic Murre at Rockport and 55 Razor-billed Auks at Rockport on the 31st.

The totals of individual year's lists are presented below in a new manner. There has been much discussion in past years over whether subspecies should be allowed, and it has been suggested that complete field notes should be required before admitting a rarity reported by someone not thoroughly familiar with the bird. The increase in the number of observers contributing lists and in the number of rarities reported makes the second course of action impracticable. The distinction necessary between indisputable records and adequate personal identifications also argues against it and, to a degree, answers the problem of subspecies. An observer is entirely justified, for example, in putting two Horned Larks, two Palm Warblers, and two Sharp-tailed Sparrows on his personal list!

It is also a fact that rejection of some of the birds reported on personal lists gives some sort of official confirmation of those not rejected. This never was intended. We "bird" for fun, and we keep years' lists for our own purposes. The *Bulletin* annually requests these lists not to pass judgment on a birder's efforts, but to heighten members' interest in active field birding and to encourage the spirit of competition that, to some extent at least, provides us with a motive for birding.

These considerations have prompted us to make two changes in publishing those year's lists which have been contributed:

1) No attempt has been made to evaluate any reports; that is properly in the province of the editors of the *Records of New England Birds*.

2) The lists are presented in general size-groups; differences of a few birds in the total have not been considered significant enough to warrant precise figures. The wide range of opinion on what subspecies should be reported is enough alone to change a total by five or six birds.

INDIVIDUAL LISTS

150 - 200

Almy, Roger W., New Bedford
Ames, Rosella S., Marshfield
Andrews, Edith F., Nantucket
Andrews, Elizabeth H., Cambridge
Andrews, J. Clinton, Nantucket
Athearn, Mrs. Roy C., Fall River
Bates, Helen C., Springfield
Bullis, Katherine M., Amherst
Campbell, Mrs. Arthur G., Winthrop
Chute, Mrs. Richard, Brookline
Clark, Robert M., Florence
Constantine, Mrs. Guy R., Tyngsboro
Creelman, Rev. Allan D., N. Scituate
Fessenden, Mrs. Bertha E., Amherst
Fleming, Mrs. Walter J., Worcester
Garrey, Elizabeth P., Waban

Johnson, Edith M., Dartmouth
Johnson, Gordon W., Dartmouth
Keith, Ruth W., Canton
Lawson, Louise S., Weston
Mosher, John and Rebecca, Chatham
Parker, Arline K., Hudson
Peterson, Julia C., Brant Rock
Sager, Lawrence A., Jr., Swampscott
Schweinfurth, Charles, Wellesley Hills
Seymour, Louise, Holliston
Sleigh, Virginia, Wellesley
Sommers, Roderick W., Medford
Taylor, Eliot, Sherborn
Winters, Mary Lou, Worcester
Worden, Mona W., Edgartown

200 - 275

Brown, Myrtie E. and Eva A., Springfield
Chute, Richard, Brookline
Dickey, Miriam E., West Roxbury
Freeland, David, Wellesley
Frisbie, Mrs. John W., Springfield
Goodridge, Alan, Peabody
Harrington, Dorothy P., Milton
Harrington, Mrs. Henry W., Milton
Harrington, H. Warren, Jr., Milton

Heywood, Mr. and Mrs. Philip B.,
Worcester
Higginbotham, Sibley, Wollaston
Howe, Perry S. and Mary E.,
South Harwich
Jameson, Lee L., Beverly
Jodrey, H. L. Lawrence, Jr., Rockport
Keenan, Bennett R., Melrose
Leadbeater, Bertram, Beverly

Sanger, Marjory Bartlett, Stow
Tyler, Mildred A., Springfield
Wade, Laurretta A., Stoneham
Weeks, Glenn A., Greenfield
Whiting, Adrian P., Plymouth

Barry, Eleanor E., Melrose
Beattie, John and Mary, Waltham
Crompton, Davis H., Worcester
Deveau, Rene Paul, Jamaica Plain
Eliot, Samuel A., Jr., Northampton
Emery, Mrs. Ruth P., Wollaston
Fox, Robert P., Wollaston
Grissom, Ludlow, Cambridge
Murray, John Thomas, Jr., Charlestown

Parker, Charles A., Cambridge
Schumacher, Gladys, Pittsfield
Schumacher, Ruth E., Pittsfield
Smith, P. William, Jr., Andover
Strickland, Donald Arthur, Marblehead
Strickland, Mr. and Mrs. H. Leland,
Marblehead
Vaughan, Leslie B., Melrose
Wiggin, Henry T., Brookline

Andover (Oscar M. Root)	192	Plymouth (Robert Fox)	182
Concord (Charlotte Johnson)	140	Quincy (S. Higginbotham and others)	166
Duxbury Beach (Robert Fox)	142	Scituate (Robert Fox)	222
Franklin County (Glenn A. Weeks)	161	Somerset (Barbara Proctor)	121
Greenfield (Glenn A. Weeks)	138	South Shore (Sibley Higginbotham)	262
Lincoln (Miss Virginia Armstrong)	139	Taunton (Rufus Wood)	107
Nantucket (Mr. and Mrs. Andrews)		Weston (Mrs. Charles L. Smith)	129
(Mr. and Mrs. Heywood)	240	Worcester (Davis H. Crompton)	118
Newton (Judy Vogel)	126	Worcester County	
North Reading (Mabel L. Blanchard)	115	(Davis H. Crompton)	180
Peabody (Alan Goodridge)			
(David Sargent)	122		

We have a new Sanctuary List this year — Marblehead Neck — and a good list it is. Won't someone undertake to keep a list for Nahant Thicket next year? Putting together the Sanctuary Lists, I found that 200 species were seen on our sanctuaries last year — a good indication that they are well-placed, since there are, of course, very few salt-water birds or shore birds on any sanctuary list.

Arcadia (Edwin A. Mason)	143	Pleasant Valley (Alvah W. Sanborn)	110
Cook's Canyon (David R. Miner)	71	Brookline Bird Club Trips	272
Ipswich River (Elmer P. Foye)	143	Children's Museum Bird Club	111
Marblehead Neck	143	Massachusetts Audubon Society	
Moose Hill (Albert W. Bussewitz)	102	Field Trips	255

Bird watching in the Boston Public Garden is gaining in popularity every year. Again this spring regular noon walks will be conducted by Audubon staff members during the first two weeks of May. Walks will be conducted each week day from May 2 to 6 and from May 9 to 13, from 12:00 to 12:30 and from 12:30 to 1:00. They will start at the Arlington Street gate near Newbury Street.

Do You Know Your Butterflies?

BY IVY LEMON

Those who are alert to the migration of colorful birds and to the seasonal changing from bare stems to flowers and leaves which goes on about us should also be on the watch for the darting and flitting of dainty butterflies in our New England countryside. There is a long list of some 113 species of butterflies which occur at some particular place and in some particular stage of development within the Commonwealth of Massachusetts. Some are brilliant in coloration, some are dull-colored and inconspicuous, but all have their interest for the nature student.

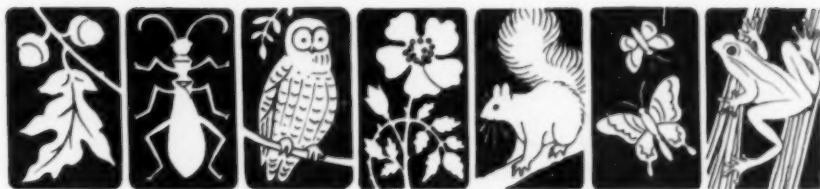
Eight different families are represented in Massachusetts out of the eleven families ranging from Canada to Florida on the Atlantic coast. Of the family Satyridae, the satyrs and wood nymphs, there are four representatives; of the Danaidae, the monarchs, there is only one, the well-known milkweed butterfly; of the Heliconiidae there are none, as this is a more southern type. One of the best-represented families is the Nymphalidae, the brush-footed butterflies, of which we have twenty-nine species and which includes the majority of species which overwinter, or hibernate, in the adult stage. Of the Libytheidae, or snout butterflies, we have a single representative, *Libytheana bachmani* Kirtland, and of the family Riodinidae, or metal marks, we have none established for Massachusetts. The family Lycaenidae, the gossamer-winged butterflies, has twenty-four representatives, which include the hairstreaks, the harvesters, the coppers, and the blues.

In the family Papilionidae, the swallowtails, we have six species, the black swallowtail, giant swallowtail, tiger swallowtail, spicebush swallowtail, zebra swallowtail, and the pipe-vine swallowtail. The Pieridae family, the whites and the sulphurs, have nine representatives. Another well-represented family is the Hesperidae, the skippers, including skippers, cloudy wings, common sooty wings, dreamy dusky wings, and sleepy and mottled wings. This family comprises thirty-seven species, making it by far the best represented although the least known and most difficult of families to identify. The family Megathymidae, the giant skippers, has no representative in New England, as the majority of species of this family use the yucca plant for food and housing.

Anyone interested in information on the identification of butterflies is invited to consult the writer, at Audubon House, where she has set up a State information file in connection with the Lepidoptera Society. You may be able to make a considerable contribution to our information if you will report various species seen or captured in Massachusetts. Such information should include as much detail as possible as to place, date, time of day, weather conditions, habits noted, altitude, direction of flight, and any other pertinent information.

Through contributed specimens we hope that a practical collection may be built up at Audubon House for use in our educational work in the schools.

Also, if anyone is interested in a project for banding monarch butterflies during their migration in late summer and early autumn, please contact the author for instruction and equipment.



EDUCATIONAL NOTES

As this is being written, moving to our very attractive and functional headquarters at Milton is imminent for the Eastern Massachusetts Division of the Educational Department. A casual observation of the expansion of working and storage space of the department's personnel and equipment should be somewhat comparable to a butterfly's release from its chrysalis. One wonders how either the butterfly or the department fitted into their former confines. However, there are additional needs accompanying this exodus. Among them are suitable containers and cabinets to house and display exhibit material (some of which we could construct with a moderate budget for materials), a duplicator, mimeoscope, additional volumes of general natural history interest for the reference library, and a portable blackboard. Contributions of, or toward the purchase of, any of these items would certainly be appreciated.

FRANCES SHERBURNE

Education takes many forms. The student of natural history may be the child who writes, "Birds appear to have a memory," or the president of a bank; the boy who describes pollenization by explaining, "The bees are taking honey from one flower that has too much and giving it to another that hasn't got enough," or an officer of the Worcester County Bar Association; the girl who says, "All of the birds that come to my feeding station have a light brown body," or a former president of the Junior League. All of these were reached by the Audubon teaching program last month, and all gained from it something lasting and worth while.

Random Notes: Anthony Thurston has found the "Question Box" technique helpful and stimulating in the classroom . . . Jacqueline Smith is impressed by the response of below-average children in "ungraded" classes . . . Ed Mason spoke on "Conservation Tomorrow" to the Easthampton Rotary Club . . . When asked the group of animals to which Marjorie Smith belonged, one of her students replied, "The Audubon Society" . . . Boys and girls in David Miner's classes discovered that tracks in the snow can tell stories . . . Nahant is responding enthusiastically to Frances Sherburne's new series of courses there . . . A Milton resident claimed she had learned more about soil in an hour from an Audubon teacher than from all she had read in the last ten years . . . And a Fall River boy in one of Doris Manley's classes greeted her with wild joy as she arrived in a snowstorm, running to meet her and crying, "Here she comes through thin and thick!"

M. B. S.

The Song of the Japanese Bush Warbler

BY YOSOICHI INOUE

I have studied bird songs ardently for sixteen years. It is a great delight to me to send you a publication about it as a member of "A. O. Chain." (1)

Because in old times in Japan Buddhism was spread more widely than at present, people then expressed various natural tones of bird songs in terms of Buddhism; for instance, the Japanese Scops Owl has been said to sing *bupp-po-so* (*butso*, translated, 'Buddha'; *po* or *ho*, 'the teachings'; so, 'priest'). Chinese Hawk-Cuckoo has been said to sing *jihi-shin* (translated, 'merciful heart'), and Japanese Bush Warbler, *hoh ho-ke-kyo* (*hokeyo*, the name of one of the sutras), etc. Many people at the present day still believe the Japanese Bush Warbler sings *hoh ho-ke-kyo*. (2)

After I had become a member of the Japan Wild Bird Society I learned that birds can sing by inspiratory as well as expiratory breath. And I tried to test how the Japanese Bush Warbler uses these two sorts of breath. I kept one in captivity from late autumn and made it sing in winter by a special device. I put the cage, in the early morning, on the window frame of an east side wall. The rising sun shone through the cage. And every time it sang I saw the white vapor in front of its bill illuminated by the sun's rays. Through many observations I learned that whenever it pronounced *ho-ke-kyo* white vapor came out of its bill, but at the time of *hoh* it did not come out. Thus I concluded that *hoh*, the preface, was pronounced by inspiratory breath and *ho-ke-kyo*, the principal phrase, by expiratory breath. This result was published in a bulletin of the Japan Wild Bird Society.

As Japanese Bird Song Records have been put on the market through the Japan Victor Recording Company, I hope you will be able to enjoy them in your country in the near future. I am very much interested in the effect the song of the Japanese Bush Warbler has on your ears.

- (1) A chain letter among a group of ornithologists scattered over the world, initiated by Rosario Mazzeo, Roger Tory Peterson, and others, and calling for the exchange of original writings, published or unpublished.
- (2) The word "sutra" in Sanskrit literature means "Buddhist scriptures."

EDITOR'S NOTE: Dr. Inoue was kind enough to have an album of these Japanese Bird Song Records sent to us, and we have found them most interesting and in many ways remarkable. For one thing, the background sounds seem to be produced largely by insects and amphibians; often the records are reminiscent of our "Voices of the Night." Also, there is frequently such a fantastic jumble of birds all singing together that one pictures the island of Japan as one vast aviary. High, thin, reedy songs are strangely absent. Many oriental birds sound owl-like in the depth and resonance of their calls, while others seem to bark and cry gutturally.

The Bush Warbler that Dr. Inoue writes about has an amazing tonal quality, quite unlike anything in this country.

Then, again, on the records are birds sounding like our North American warblers and one much like our cuckoo, but the accompanying "explanatory" pamphlet is written entirely in the native language, which, while decorative, can hardly be called informative from our point of view. If these Japanese Bird Records are issued in this country, we shall no doubt have with them a translation of this interesting-looking text.

Thumbnail Sketches of Our Vice-Presidents



AARON MOORE BAGG, of Holyoke, Massachusetts, was elected an honorary vice-president of the Massachusetts Audubon Society at the meeting of the board of directors in January, 1955. It seems natural that Mr. Bagg should steadily become more interested in the work of the Society of which his father, Aaron Clark Bagg, was a director from 1934 to 1943, and since his father and his mother, Helen Moore Bagg, were responsible for first interesting the Massachusetts Audubon Society in Arcadia Wildlife Sanctuary in Northampton. His father also collaborated with Professor Samuel A. Eliot, Jr., in the publication of *Birds of the Connecticut Valley*.

Mr. Bagg was born in Holyoke, April 6, 1912. He was educated at Hotchkiss School and at Princeton University, from which he was graduated in 1934. He has done free-lance writing on natural history subjects, having conducted nature columns for the Holyoke *Transcript* and the Hartford *Courant*. He is an elected Member of the American Ornithologists' Union and also takes an active interest in the Wilson Ornithological Club.

Readers of the *Bulletin* are familiar with Mr. Bagg's particular interest in the hawk flights over Mt. Tom, as well as surrounding regions, and the conclusions he has drawn concerning the effect of wind currents on these birds. His principal ornithological interest has been in the field of migration and the effect of weather factors upon it. From boyhood he noticed that in the spring heavy active movements of birds could be expected under particular recurring weather conditions and was led from this into what has proved to be a fascinating study. On March 25, 1947, hard on the heels of a warm frontal passage, he observed over his home a marked flight of Canada Geese, Robins, and Blackbirds. His interest in the effect of weather has led him into close collaboration with many authorities in this country and in Europe. With W. W. H. Gunn, D. S. Miller, J. T. Nichols, Winnifred Smith, and F. P. Wolfarth, a paper was produced, "Barometric Pressure-Patterns and Spring Bird Migration," which appeared in the *Wilson Bulletin* in 1950. Also, in collaboration with Henry M. Parker, he wrote a paper on "The Turkey Vulture in New England and Eastern Canada Up to 1950," which was published in *The Auk*.

Mr. Bagg believes thoroughly in conservation measures which have been initiated by the Massachusetts Audubon Society, which have led to increased interest in birds throughout New England, and he feels, also, that the amateur bird watcher today has good chances for new discoveries, since he is likely to be in the right spot at the right time to notice significant phenomena.

In 1937 Mr. Bagg was married to Theodora Myers, of Elizabeth, New Jersey, and they have two daughters, Priscilla and Perry.

C. RUSSELL MASON

From the Editors' Sanctum — April, 1955

The Bluebirds Are Here Again!

As I write this, on March 21, the Vernal Equinox is here, when spring begins officially, but the observant have seen many signs of the approach of this most welcome of seasons. Only on a few of the more sheltered slopes can we today find the last remnants of the blanket of snow which a little while ago hid the fields and whitened the woodlands. Now is the awakening time, when birds return from their winter haunts, when flowers bloom and trees leaf out, when hylas trill and insects hum, and when, although

"The spring comes slowly down our way,"

we all rejoice with the certainty that it is indeed here of a certainty.

Already in the swamps the humble skunk cabbage is in flower, as the bees well know, its brown mottled hoods poked up from the black muck beneath the sprawling alders. The swollen buds of the silver and the red maples show clearly against the blue sky, the pussy willows have pushed their soft paws from beneath the brown scales which protect them throughout the winter months, and sweet sap is dripping from the cuts the thirsty squirrels have made in the bark of the maples and birches.

And the Bluebirds are here again!

The brown and yellow catkins of the alders will soon be lengthening out and shaking their clouds of pollen dust on the spring breezes, the white down from the poplars will be drifting like a miniature snow squall, the little-known catkins of the hazelnut will be drooping over the old stone walls, and overhead

"Saffern swarms swing off from all the willers,

So plump they look like yellor caterpillars."

Hidden among last year's oak leaves in mid-April we look for the deliciously scented arbutus, or for the white or pink or delicately blue blossoms of the hepatica; the many-rayed stars of the bloodroot peek out from their protecting leaves, and soon the mayapples will raise their unopened umbrellas, columbines and the pale corydalis will drape the rough ledges, and the early ferns will show their fiddleheads slowly uncurling. Wherever we look, signs of spring will become more and more evident.

And the Bluebirds are here again!

There are always a few Robins to be found by those who know their haunts, even in the coldest and longest of Massachusetts winters. Song Sparrows, too, are here in small numbers, garnering weed seeds in our gardens. They are the optimists among the birds, singing every month of the year, and often, like the Robin, singing in the rain their *Sweet, sweet, sweet, very merry cheer*. But suddenly new birds appear, the population of wintering birds is augmented by great numbers of early migrants, and spring is really here. No longer are our bird neighbors limited to the hardy seed-eaters and the resourceful ones, like the Chickadees, the Jays, and the Crows, for with the warmer weather and the awakening of the insect multitudes, birds like the Tree Swallow, the Phoebe, and the Woodcock return, assured that their favored foods are available once more.

And the Bluebirds are here again!

"I am so glad and blithe today!

At morn I heard a bluebird sing;

The bluebird, warbling soul of spring,

The prophet of the leafy May . . .

For spring has come when the bluebird sings,

And folds in the maple his glossy wings,

And the wind may blow, and the storm may fall,

But the voice of summer is heard in all."

So sang Edna Dean Proctor, and so say we all of us, when at last

THE BLUEBIRDS ARE HERE AGAIN!

J. B. M.

Birds Round the World on Postage Stamps

No. 3. Canada Goose

By C. RUSSELL MASON



Canada has honored its national bird and stressed the importance of waterfowl as a natural resource by twice depicting the Canada Goose on seven-cent airmail stamps. One, issued in 1946, shows an adult in flight with a V formation of "honkers" in the distance. The later issue, released in 1952, has a single goose as the central design,

and, interestingly enough, it was taken from a photograph by Henry B. Kane of a bird rising from a pond in Lincoln, Massachusetts.

The Canada Goose ranges from the Atlantic to the Pacific and from the Gulf of Mexico nearly to the Arctic coast. Except in extreme northern New England, it is mainly a migrant, though wing-clipped and feral birds have encouraged some of their wild clan to pause occasionally to summer in Massachusetts.

This goose is one of our earliest spring migrants, the flocks starting to move northward while the countryside is still icebound. As the groups, headed by the older and stronger birds that seem to sense the safest course, pass northward across the skies, they are harbingers of pleasant spring days to come, and when they return in late autumn the crisp air is a foreboding of winter weather ahead. They move by night or by day, stopping to rest and feed on fresh green shoots of grain or grass, buds or berries, or large insects, like grasshoppers. At times confused by storm or fog, they will land on a convenient open area, even though it may be in the midst of a town or city.

It is always a delight to bird observers to hear the geese passing. Arthur Cleveland Bent well expresses this feeling in his *Life Histories of North American Birds*: "As the clarion notes float downward on the still night air, who can resist the temptation to rush out of doors and peer into the darkness for a possible glimpse of a passing flock, as the shadowy forms glide over our roofs on their long journey."

The Canada Goose is a wary bird with acute sight and hearing. The gander acts as sentinel for the brooding mate, and with his weight of eight to fourteen pounds and ability to strike with the force of powerful neck and beak, he is a formidable antagonist for any intruder. The nest is usually placed on the ground in an isolated location, but the geese may use rocky ledges, adopt an old osprey nest in a high tree for a foundation for their own, or, as at Pleasant Valley Sanctuary one year, they may nest on top of a beaver lodge. At times, instead of flying when disturbed they will play possum, squatting low, with head and neck stretched straight before them on the ground.

Audubon knew this species well and in his journals gave an excellent account of the rivalry between the ganders and the courtship performance. Canada Geese are said to mate for life.

State-wide Bird Walks — 1955

Audubon Day

Saturday, May 7

All walks begin at 8:00 A.M. unless otherwise indicated

<i>Town</i>	<i>Leaders</i>	<i>Meeting Place</i>
Amherst	Prof. Lawrence M. Bartlett	6:00 A.M. and 8:00 A.M. Fern-
	Prof. William B. Nutting	ald Hall, Univ. of Mass.
Andover	Mrs. Waters Kellogg	To be announced
Auburndale	Elbridge A. Minard	Norumbega Park Bridge
Avon	Miss E. Mildred Crane	121 Pond Street
Barnstable	Mrs. Roger L. Lyon	John Jenkins Reservation, West Barnstable
Barre	David R. Miner	8:30 A.M. Cook's Canyon Wild- life Sanctuary
Belmont	Mr. and Mrs. S. D. Robbins	5:30 A.M. Under R.R. Bridge, Belmont Center
Beverly	Lee L. Jameson	Montserrat R.R. Station
Boston	Miss Rosamond Wild	Fenway near Rose Garden
Boxford	Mrs. Charlotte L. Maddock	Town Hall
Bridgewater	Miss E. Irene Graves	In front of Boyden Hall, State Teachers College
Brookline	Irving C. Keene	Larz Anderson Park
Bryantville	Lawrence Sargent	6:00 A.M. Leader's home, School Street
Burlington	Norman L. C. Gay	Leader's home, 12 Francis Wyman Road
Cambridge	Miss Vivian C. Bushnell	Main Gate, Mt. Auburn Cem- etery
Charlestown	Miss Katharine P. Lanctot	St. John's Rectory, 41 Monument Square
	Rev. Wolcott Cutler	14 Seneca Ave.
Chelmsford	Mrs. Henry Pero	5:30 A.M. Richardson's Drug Store
Concord	Winthrop H. Lee	Corner of Maple and Summer Streets
Danvers	Gardner Burgess	8:30 A.M. Children's Museum in Russell's Mills
Dartmouth	Gordon W. and Edith M. Johnson	John Wylde's driveway
Dover	Mrs. Ulysse Auger	6:00 A.M. 35 East Street, Elm- wood
East Bridgewater	Mrs. E. W. Grew, Jr.	163 Main Street
	Mrs. Richard H. Jackson	2:00 to 4:00 P.M. Arcadia Wild- life Sanctuary
Easthampton	Mrs. David A. Riedel	Leader's home, Taylor Street
Easthampton	Edwin A. Mason and family	8:30 A.M. Memorial Park
East Pembroke	Mrs. Sydney Kingsmill	Corner of Willow Street and New Boston Road
Edgartown	Mrs. Mona W. Worden	6:00 A.M. Coolidge Park
Fall River	Mrs. Amasa F. Williston	153 Pine Street
	Mrs. Ralph Hentershee	Congregational Church
Fitchburg	Miss Rachel Bruce	
Florence	Robert M. Clark	
Foxboro	Mrs. Russell Carleton	
	Mrs. George Walsh	
Framingham	Frederick Y. Briscoe	7:30 A.M. Framingham Centre Common
Georgetown	Miss Satira T. Stetson	To be announced
Greenfield	Glenn A. Weeks	Highland Avenue entrance to Highland Park
Hanover	Mrs. Frederick Nagle	Leader's house, East Street
Harwich	Howard Cahoon	To be announced
Haverhill	Mrs. Edward Dierauer	8:15 A.M. Castle Gate on Kenoza Avenue

<i>Town</i>	<i>Leaders</i>	<i>Meeting Place</i>
Hingham	Mrs. John Webb	Hingham Public Library
Holliston	Richard W. Hildreth	Front steps of Town Hall
Holyoke	Aaron Moore Bagg	6:30 A.M. Leader's home, 72 Fairfield Ave.
Jamaica Plain	Miss Miriam E. Dickey	Monument at Eliot and Centre Streets
Lakeville	B. Richard Headstrom	Lakeville Library
Lenox	Alvah Sanborn	Pleasant Valley Wildlife Sanc- tuary
Leominster	Miss Elisabeth Lincoln	7:00 A.M. 226 Union Street
Lexington	Felix V. Cutler	The Minute Man at Lexington Green
Lincoln	Dr. Charles H. Blake	Post Office
Lynnfield	Bennett R. Keenan	5:30 and 8:30 A.M. Lynnfield R.R. Station
Marblehead	Mrs. David H. Searle	Devereux Beach
Marlboro-Sudbury	Miss Frances Sherburne	9:15 A.M. Maintenance Bldg., Dept. of Natural Resources, Stow
Marshfield	Miss Rosella S. Ames	8:30 A.M. Camp "Wings in the Blue"
Middleboro	Miss Julia C. Peterson	7:30 A.M. Rock Pond
Milton—Braintree—	Lester R. Spaulding	7:00 A.M. Junction of Canton Avenue and Blue Hill Pkwy.
Quincy	H. Warren Harrington, Jr.	7:00 A.M. Monson Library
Monson	George Rickard	Wharf Street, Nahant Thicket
Nahant	Miss Olga L. Thisland	6:00 A.M. Corner of Orange and Main Streets
Nantucket	Mr. and Mrs. J. Clinton Andrews	Pond and Cemetery Streets
Natick	Miss Eva C. Collins	Pumping Station at the Reser- voir, Dedham Ave.
Needham	Mrs. Rosa E. Woolley	Leader's home, 40 High Street
Newburyport	Mrs. Clara de Windt	Leader's home, Wendell Road
New Salem	Mrs. Clarence Mackie	Oak Hill School, 130 Wheeler Rd.
Newton Centre	Martin Myerson	Corner Walnut Street and Wor- cester Turnpike
Newton Highlands	Mr. and Mrs. C. Russell Mason	Corner of Walnut Street and Commonwealth Avenue
Newtonville	Mrs. Donald B. Hyde, Mr. and Mrs. Harold L. Stillman	Leader's home, Stony Brook
Norfolk	Mrs. Bennet B. Bristol	Corner of Highland Avenue and Holton Street
Northfield	Mrs. Irwin Severance	Bulrush Farm
North Scituate	Mrs. Andrews Wyman	Stone gates on Stetson Rd.
Norwell	Mrs. Leroy P. Edwards	May 14, High School parking lot
Orleans	Mrs. Carl C. Lund	
	Mrs. Marguerite R. Ford	
Osterville	Mr. and Mrs. Daniel P. Johnson	Community Building
Palmer	Mrs. Elizabeth J. Stickney	6:00 A.M. Post Office
Peabody	Alan Goodridge	9:30 A.M. Proctor House, Lowell Street
Pittsfield	Miss Edna L. Dunbar	7:30 A.M., in front of Berkshire Museum
Plymouth	Adrian P. Whiting	7:30 A.M., rear of Memorial Hall
Plymouth	Miss Grace Cramer	Home of Mrs. Dean Eldridge
Princeton	Mr. and Mrs. Gordon H. Smith	7:30 A.M. Leaders' home, Old Colony Road
Provincetown	Mrs. William H. Watts	Pilgrim Springs Road, on Route 6, No. Truro
Reading	Mrs. Eber Heston	Meadowbrook Golf Club, Grove Street
Rockport	H. Lawrence Jodrey, Jr.	Entrance, Beech Grove Cemetery
Rutland	Miss Florence Wheeler	To be announced

<i>Town</i>	<i>Leaders</i>	<i>Meeting Place</i>
Sandwich	Mrs. T. E. Holway Mrs. Trevor Heald	7:50 A.M. Town Hall
Sharon	Albert W. Bussewitz	Moose Hill Wildlife Sanctuary
Sharon	Miss Emily Goode	7:30 A.M. Sharon R.R. Station
South Braintree	Mrs. Blair, librarian	7:00 A.M., in front of library
South Lancaster	C. Roy Smith	1:00 P.M. Post Office
Springfield	William A. Tompkins	Barney Mansion, Forest Park
Stow	Mrs. Edward J. Sanger, II	7:30 A.M. Pilot Grove Farm
Sutton	Miss Ruth Dukes	8:15 A.M. Memorial School
Topsfield	Elmer Foye and guest leaders	8:00 A.M., 10:00 A.M., 1:00 P.M., 3:00 P.M. Ipswich River Wildlife Sanctuary
Townsend	Miss Ruth Brooks	Spaulding Memorial School
Tyngsboro	Mrs. Guy R. Constantine	Dunstable Road
Waban	Mrs. Walter E. Garrey	Rhodes Drug Store
Waltham	Miss Gertrude Sanderson	Leader's home, 111 Lincoln Street
Warwick	Mrs. Clarke L. Wilcox	8:30 A.M., corner of Laurel Lake and Quarry Roads
Washington	Mr. and Mrs. Alexander G. Jarvie	Leader's home, Hinsdale
Wayland	Allen H. Morgan	Corner of Routes 20 and 126, center of town
Wellesley	Charles Schweinfurth	8:30 A.M. Washington Street, at Congregational Church
Wellesley	F. C. William	7:30 A.M. Parker Road at Parker Road Extension
West Falmouth	Douglas B. Sands	7:00 A.M. George West's Market
West Medford	Mrs. Windsor W. Esten	7:30 A.M. Mystic Valley Parkway, corner of High Street
West Newton	Miss Marian F. Allen	Leader's home, 52 Sewall St.
West Stockbridge	Mrs. C. L. Hauthaway	Beverly Bird Haven, Stockbridge Road
Weston	Mrs. Loran K. Beverly	8:30 A.M. Warren Avenue and Gun Club Lane
Westport	Mrs. Charles L. Smith	7:00 A.M. Leader's farm, Pine Hill Road
Weymouth	Julius T. Smith	16 Brook Terrace
Weymouth	Miss Vernice Tirrell	7:00 A.M. Weymouth Town Hall
Whitinsville	Mr. and Mrs. Albert Nonkes	8:30 A.M., in front of Library
Williamsburg	Miss Ethel M. Pope	6:00 A.M. Leader's home
Winchester	Mrs. John Black	Leader's home, 98 Hillcrest Parkway
Worcester	Miss Leslie H. Wetterlow	Elm Park Spa, corner of Highland Street and Park Avenue
	Davis H. Crompton	

As indicated by a report from William P. Wharton, at Cape Canaveral, Florida, on February 20 they had a fine view of seventeen Avocets which had been wintering there this year.

"Spiritually we need the mature forest . . . we must show our people that it is more than timber. It is big trees, little trees, hollow trees, and fallen logs; shrubs and herbs; white pine and hazelbush; deer, grouse, red squirrels, and porcupines. My forest is neither a deer park nor an all-out production area, but something of both and much, much more."

George A. Griffith, Michigan Conservation Commission. From paper read before International Association of Game, Fish and Conservation Commissioners, Seattle, September, 1954.



SANCTUARY NEWS

The end of February found the sanctuary directors looking toward spring. Waterfowl returned to Arcadia Marsh — at least the Black Ducks and a few Mallards were quacking their enjoyment of a small area of open water. A lone Robin fed on the inkberry fruits in mid-February, Edwin Mason reported, and the first Bluebird was seen there on the 22nd showing interest in one of the houses. Another Bluebird sang at Ipswich River in a snowstorm on the 15th, a Brown Thrasher was seen there on the 20th, while the first Red-shouldered Hawk screamed above the Sanctuary on the 9th. A Red-shoulder also appeared at Pleasant Valley at the end of the month.

Albert Bussewitz reported that his busy week, the "winter vacation" from school beginning February 20, was more like spring. He led girl scouts from neighboring towns on field trips and helped them work toward conservation and bird badges. The display in the Museum Room at Moose Hill emphasized color in winter buds and twigs, the red in maples and high-bush blueberry, yellow in weeping willow and bitternut, green in sassafras, brown in beech, and gray in pussy willows where the catkins were just beginning to show.

Davis Crompton found the first nest for 1955 at Arcadia, that of a Great Horned Owl. And a Pheasant began crowing to his harem of nine sleek ladies. "Combine these two items," Ed Mason wrote, "with the fact that visitors were getting stuck in mudholes, and you have the incontrovertible fact that spring is here."

Evening Grosbeaks stayed on at Cook's Canyon, 30 to 40 every day of the month. At Moose Hill they came only twice to the box elder in small flocks of 5-8, with the females as usual predominating. Alvah Sanborn said that Pine Grosbeaks have been the most exciting birds of the winter, one male being bright enough to remind him of a Scarlet Tanager. These birds, readily approached, fed most often in the sumac near the museum, with a flock of 10-17 a regular occurrence. Toward the end of the month 19 were observed feeding in the tamarack on the Nature Trail.

Goldfinches were reported in increasing numbers at Moose Hill, although birds in general were down from other years. A Ruffed Grouse came to a feeder early in the month, and an overwintering Cowbird at the end.

Elmer Foye saw an adult Bald Eagle circling the river marsh on the 4th, and on the 20th heard Screech and Great Horned Owls. Between the 19th and the 21st Alvah Sanborn recorded Saw-whet, Great Horned, and Barred Owls, and a young injured Screech Owl, "Tu Whit," was brought to Moose Hill for care.

Northern Horned Larks were seen at Arcadia on the 17th, and Snow Buntings were "literally crawling" in near-by meadows from midmonth on. Thirty-one Snow Buntings appeared on the hilltop field at Ipswich River, where the rippling song of the Purple Finch was heard for the first time on the 24th.

Local boys exploring Cook's Canyon found the body of a Red Fox, apparently killed by dogs. Elmer Foye found Otter and Deer tracks at Ipswich River, and a Mink skirting the Rockery Pond. Ricky, the pet Raccoon at Moose Hill, is reported in good shape, having lost no weight over the winter.

Alvah Sanborn wrote that work has been going on apace on exhibits for the museum, with new cases for live insects being constructed and labels printed. A fine specimen of a Pileated Woodpecker was received which, mounted wings outspread, should make a fine addition to the Pileated exhibit. Work on the Beaver management cutting has also been undertaken, with the removal of dense stands of black cherry to release white ash, the chief food of the Beaver in this area.

At Ipswich River a new trail map has been printed which includes most of the Sanctuary trails. Volunteer workers for trail clearing are always welcome.

David Miner helped girl scouts at Cook's Canyon with their merit badge work, and on February 1 he spoke to the Barre Grange on "The Audubon Program in Worcester County."

"Round and round the cord wood pile
The Hawk he chased the Chickadee,
He said, 'You'll see, I'll get you yet.'
'Optimist!' said the Chickadee."

This occurred at Arcadia on February's favorite day, St. Valentine's. "The hawk," Ed Mason informs us, "was a Cooper's, and the Chickadee sneaked out one side while the Hawk was on the other."

M. B. S.

Among Our Contributors

LUDLOW GRISCOM is here introduced almost presumptuously. It is hard to imagine anyone, from beginning birder to established ornithologist, who has not had the ambition to go on a field trip with Mr. Griscom, the man who long ago "raised field ornithology to the dignity of science." Active in the Museum of Comparative Zoology at Harvard, author of many books, a member of our board of directors, and first vice-president of the American Ornithologists' Union, Ludlow Griscom was heard recently in a discussion of the birds of the Plum Island region, the feature of the Society's 1955 Annual Meeting.

DR. YOSIOCHI INOUE is a graduate of the Imperial University of Tokyo, and a practicing physician in Oyama, Japan. He has been most active in promoting the conservation work of the Japanese Wild Bird Society and extending the influence of this group nation-wide. Efforts have

been made under his guidance to eliminate the illegal trapping and caging of thrushes and other small songbirds, practices that have been carried on for centuries in his country, and to focus attention on the observation and enjoyment of birds in the field.

BENNETT KEENAN, of Melrose, Massachusetts, has been interested in birds since 1937. A graduate of Harvard in economics, *cum laude*, in 1947, he is now credit analyst for the New England Trust Company, finding time also to be active as a boy scout leader and as a member of the Nuttall Ornithological and Essex County Ornithological Clubs. Many of our readers know Ben Keenan as a wise and delightful leader of Sunday bus trips. He is headed for Florida this month, to seek out new birds as well as familiar species migrating north.

Reaching Out

No doubt, in the minds of many, "Audubon" and "birds" will always remain synonymous. And with birds as a starting point, it is astonishing how the nature and scope of the work of the Massachusetts Audubon Society has broadened and branched out over the years, until today we have a program with a very wide appeal to individuals of varying interests. One may be introduced to our work through birds and gardens, another through birds and books, or it may be birds and science, birds and cameras, birds and recreation, birds and travel, or birds and postage stamps. A review of *Bulletin* issues over the period of a year, or even less, will reveal a great variety of subjects interestingly presented, so that we are constantly receiving appreciative comments from readers who find some article or issue of special value to them. Hence, the *Bulletin* attracts and holds support for wildlife conservation. Sample copy — anyone?

We welcome the following new members at this time, and we continue to be encouraged by the increased contributions from older members of the Society.

Contributing Members

- **Jackson, Miss Esther,
Peterborough, N. H.
- **Kingsbury, Dr. Marguerite,
Sunmount, N. Y.
- **Steward, Gilbert L., Topsfield

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- *Potter, Mrs. G. C., Charlotte, N. C.
- Potter, Mr. and Mrs. Gervase C.,
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- *Richmond, Miss Eleanor B., Newtonville
- *Roberts, Walter, Jr., Norwood

- Smith, David Julian, Cambridge
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- **Transferred from Supporting
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 Whiting, Mrs. F. W., Framingham Ctre.
 Wiggins, Noel, Norton
 Yarmouth Elementary School,

S. Yarmouth

Audubon Field Trips

SUNDAY, APRIL 24. To Westport, for land and water birds and early migrants. Leaders: Mrs. A. F. Williston, Mrs. Ralph Hentershee, Miss Barbara Proctor, C. Russell Mason, and Robert L. Grayce. Fare and guide fee, **\$3.75**. Fee for those using private cars and following bus, 75 cents per person.

SUNDAY, MAY 22. To Audubon wildlife sanctuaries north of Boston for spring migrants. Nahant Thicket, Marblehead Neck, and Ipswich River Sanctuaries. Fare and guide fee, \$3.00. Fee for those using private cars and following bus, 75 cents per person.

Unless otherwise noted, *all Audubon field trips* will leave Audubon House, 155 Newbury Street, Boston, at 8:15 A.M. by chartered bus, returning at approximately 7:00 P.M. Reservations should be made a week or more in advance. Cancellations cannot be accepted after noon of the Friday preceding the trip. Bring your own lunch. Above trips on Daylight Saving Time.



Massachusetts

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Connecticut Valley Campout May 13 - 15, 1955

HEADQUARTERS: Arcadia Wildlife Sanctuary. Mail address: Easthampton, R. F. D. Telephone: Northampton 2946.

RESERVATIONS: Limited to fifty members. Registrations *must* be sent to Arcadia Wildlife Sanctuary, Easthampton, Mass., and will be accepted in order of their receipt. The fee of \$6.00 per person *must* accompany the registration. No registrations will be accepted after May 7.

FEES: The registration fee of \$6.00 covers the Saturday morning breakfast, a box lunch on both Saturday and Sunday, and guide service. It is suggested that water canteens be carried. The box lunches will contain fruit but no beverage.

TRANSPORTATION: The cars of those attending the campout will be used on the various trips, as before. Seats for those arriving at Arcadia by public transportation will be arranged to the extent that this is possible.

LODGING: A list of accommodations available near by will be mailed to each person with acknowledgment of registration. There is a wide variety of lodgings available in the vicinity. As this is strictly a personal matter, no lodging reservations will be made by the Society for members planning to attend the campout. A number of excellent camp sites are available on the Sanctuary for those using tent, trailer, or sleeping bag.

Program

FRIDAY, MAY 13

Arrive, make camp, informal visiting, and at dusk a chance to hear the Woodcock's flight song. Early to bed.

SATURDAY, MAY 14

Free-lance birding on the Sanctuary until 7:30, then breakfast under the maples.

Time of decision: 8:00-8:10. Registration for the following field trips: TRIP 1. *The Valley to the North*, (all-day trip). Professor Lawrence Bartlett, Professor William Nutting and Robert Clark will lead this ever-popular trip. The route will include Sandy Beach, Lawrence Swamp, Amherst College Sanctuary, Sunderland Fish Hatchery, Sunderland Waterfall for the Louisiana Water-Thrush, and Mount Sugarloaf, where there is a Duck Hawk eyrie.

TRIP 2. *The Valley to the South*, (all-day trip). Leaders will be Davis Crompton, C. Russell Mason, and David A. Riedel. The points of interest and their specialties are: Longmeadow (Chat, Yellow-throated Vireo), Longmeadow Country Club (Brewster's Warbler), Forest Park, Agawam (Upland Plover, Grasshopper and Henslow's Sparrows), Ashley Ponds (Blue- and Golden-winged Warblers).

TRIP 3. *A Geological and Natural History Foray in the Connecticut Valley*. This will be a repeat performance, with variations, by Professor L. Richard Wilson, who will be accompanied by Professor William Randall. This trip has been arranged especially for those who missed it last year, and were sorry. Here is a chance to understand the present natural history of an area as it is related to its geological past.

Tall Story Hour, 8:30 P.M. Around the campfire or in the barn, depending on the weather, to check on the day's lists and the ones that got away. Registration for the Sunday trips. (Guides please note that trip lists for both days are to be turned over to Professor Samuel A. Eliot for final compilation.)

SUNDAY, MAY 15

TRIP 4. *The Valley to the North*. The route will be essentially the same as given for TRIP 1. The leaders will be Davis Crompton, C. Russell Mason, Raymond Johnstone, and Glenn Weeks. Trip leaves Arcadia at 7:30, returning about 2:30.

TRIP 5. *The Valley to the South*. Professor Bartlett, Professor Nutting, and George Clark. This trip will cover most of the areas listed under TRIP 2. If there are "early birders" who would like to try for rails and the two Bitterns at the Longmeadow Marshes, a group will leave the Miss Northampton Diner at 5:00 A.M. The trip will return to Arcadia about 2:30.

TRIP 6. *The Valley Central*. Led by Aaron M. Bagg, Mrs. Marie Schurr Quirk, and Rudd Stone, this trip will comb some of the areas frequented by the Holyoke Bird Club, including The Cove and the South Hadley River Road. Trip leaves Arcadia at 8:00 A.M., returning about 2:30.

Form of Registration

To be mailed to Edwin A. Mason, Arcadia Wildlife Sanctuary, Easthampton, Mass. Do not register at Audubon House in Boston.

If you do not wish to damage your *Bulletin* by tearing out the form below, please copy its wording when sending registrations.

I (We) hereby register for the CONNECTICUT VALLEY CAMPOUT, May 13, 14, 15, 1955. Enclosed is (are) registration fee(s) at the rate of \$6.00 per person. Amount enclosed \$..... (Make checks payable to Edwin A. Mason.)

I can furnish transportation for persons.

I desire transportation for persons.

Name Address

Name Address

Name Address

To be filled in on receipt: Registration No.

Date rec'd Registration No.



January, 1955, was a below-normal month as far as temperature and precipitation were concerned, but February started out much colder, with the lowest temperature of the season, -1° , on February 3, and the thermometer registering below freezing for the first nine days of the month. But on February 10 the temperature jumped to 57 degrees, and with the exception of three days the rest of the month remained mild. Snow fell on ten days but only measured a total of 6.5 inches. But rainfall was heavy, and if all the precipitation had been in the form of snow it would have totaled between 30 and 40 inches. On four days, from February 10 to 13, the wind velocity went as high as 56 miles an hour. A definite migration wave was reported in the Sudbury Valley, coincident with the jump in temperature and the high winds, February 10.

PIED-BILLED GREBES appeared at various places as ponds and streams opened in the mild weather. Most of the fresh-water ducks seen were apparently wintering birds straggling about in search of open water for feeding. Eight GREEN-WINGED TEAL were seen at Plymouth, Feb. 6; 2 EUROPEAN WIDGEON and 5 BALDPATES were at Leverett's Pond; a single BLUE GOOSE was reported on the Mystic Lakes, Feb. 5. A male RING-NECKED DUCK and 13 HOODED MERGANSERS were seen in the Sudbury region. Two KING EIDERS, 2 HARLEQUINS, and 2 BARROW'S GOLDEN-EYES were noted at Cape Ann. A male BARROW'S in the Sudbury Valley, Feb. 5 (Stackpole, Morgan), was apparently a new record for that area. A male TUFTED DUCK was carefully observed at Newburyport, Feb. 8 (Hill).

On Feb. 3, 14 BLACK-CROWNED NIGHT HERONS were found dead at Hingham when the shallows at Broad Cove were covered with ice; this is about half the number seen alive earlier.

From 35 to 50 AMERICAN COOT have been noted at Jamaica Pond and scattering birds elsewhere, at Framingham, Plymouth, and Winchester. A CLAPPER RAIL at Plymouth, Feb. 24, is of interest, as are KILLDEERS at Plymouth and in the Sudbury Valley.

About a dozen white-winged gulls were seen near the Merrimac River jetties in Newburyport, including GLAUCOUS, ICELAND and KUMLIEN'S; GLAUCOUS GULLS at Auburndale and Jamaica Pond are more notable. The EUROPEAN LITTLE GULL was still at Newburyport, Feb. 19. Few Alcids were reported, but among them was an ATLANTIC MURRE observed at Rockport, Feb. 7 (Elkins, Griscom).

Various owls were recorded, including SNOWIES at Squantum, Newburyport, and Cape Ann and SHORT-EARED OWLS at Squantum; LONG-EARED, BARRED, GREAT HORNED, and SCREECH OWLS were heard. A YELLOW-BELLIED SAPSUCKER was found dead at Orleans, Feb. 7. PRAIRIE HORNED LARKS appeared at their nesting grounds and were singing on Feb. 19 and 20.

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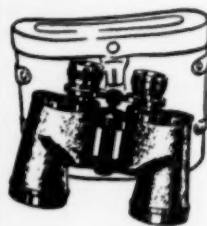
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While RED-WINGS, ROBINS, and BLUEBIRDS have wintered in south-eastern Massachusetts, they were definitely moving around during February and spring songs were being heard from them frequently. MOCKINGBIRDS were present in Exeter, N. H., Rockport, and Hingham, and at the Arnold Arboretum. MYRTLE WARBLERS were noted in Cohasset, and at Duxbury, where 24 were seen Feb. 20; PINE WARBLERS were seen at Wayland, Feb. 2-6, and at Middleboro, Feb. 19; a YELLOW-BREASTED CHAT has wintered at Orleans.

Three ACADIAN CHICKADEES have been visiting a feeder at Newburyport, and 2 TUFTED TITMICE were reported from West Springfield, where a CAROLINA WREN was also reported; one of the latter was noted at Waltham. Several NORTHERN SHRIKES have been reported.

The CARDINAL noted earlier is still at Middleboro; the BLACK-HEADED GROSBEAK at Duxbury was seen, Feb. 6, and again, Feb. 14. A RED-EYED TOWHEE is visiting a feeder at Sharon. Two WHITE-WINGED CROSSBILLS were seen in Wellesley, Feb. 14 (Hunnewell); EVENING GROSBEAKS are well distributed, with 300 at Williamstown; PINE GROSBEAKS have thrived on berries, such as Ligustrum; rather few REDPOLLS were noted, though 1000 were estimated at Lunenburg; PINE SISKINS, PURPLE FINCHES, and GOLDFINCHES appeared in limited numbers at feeding stations. A few wintering SONG, WHITE-THROATED, and FOX SPARROWS have been heard singing.

Mrs. Ruth Emery, who has done such a fine job for the *Records of New England Birds*, the "Voice of Audubon," and these *Bulletin* Field Notes, is now in California enjoying a well-earned vacation and adding new birds to her already long Life List. The "Voice of Audubon" is still working overtime trying to furnish pertinent and timely information. Its great popularity evoked the following effusion from an anonymous friend:—

We call to hear about the birds
But all we hear is buzzin';
The busy signal takes three-thirds
Of all our calls, dear Cousin.

News of Bird Clubs

April field trips scheduled by the SOUTH SHORE BIRD CLUB include an all-day trip on April 16 to South Hanson for fresh-water ducks, and it will also cover Thompson Street (see February *Bulletin* article). Trip leaves from the parking space behind the Adams Academy, Quincy. Leader, Jalmar Nelson, Weymouth 9-1097. On Friday, April 29, there will be a Workshop on Bird Migrants at the Quincy Public Library, at 7:45 P.M. On Sunday, May 1, the club will conduct a half-day trip to Milton and Canton, for early warblers, with Warren Harrington as leader (Bluehills 8-5567).

The HARTFORD BIRD STUDY CLUB, at their meeting on April 12, will feature the color film "Panama Venture," by Lorus and Margery Milne, and on April 26 will have an illustrated talk on "Wild Flower Identification" by Mrs. Leslie T. Goodrich. Field trips during the month include a Sunday afternoon Identification Walk at Laurel Lake on April 3, with Miss Victoria Schuetz as guide; an all-day trip to the Shore — Niantic to New London, led by Mrs. Leslie T. Goodrich; a trip to Bloomfield on April 16, led by Mrs. Ray Simmons; April 23, to Stebbins' Refuge, Longmeadow, as guests of the Allen Bird Club; and Breakfast at Penwood on Saturday, April 30.

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LOOKING AHEAD



- April 6 First meeting of "INTERMEDIATE BIRD IDENTIFICATION COURSE." Audubon House, 7:30-9:00 P.M. Continues Wednesday evenings to May 25.
- April 7 Continuing INTERMEDIATE BIRD IDENTIFICATION COURSE, Thursday mornings.
- April 7 First meeting of "WEB OF LIFE," Thursday evening Intermediate Conservation and Natural Science Course. Audubon House, 7:30-9:00. Continues to May 19.
- April 7 Cook's Canyon, Barre. Thursday evening Bird Walk.
- April 12 Continuing "THREE KINGDOMS," Introductory Conservation and Natural Science Course. Audubon House. Tuesday mornings, 10:15-11:45.
- April 12 Continuing "THREE KINGDOMS," Introductory Conservation and Natural Science Course. Audubon House. Tuesday evenings, 7:30-9:00.
- April 13 Continuing "WEB OF LIFE," Intermediate Conservation and Natural Science Course. Field Trip.
- April 13 Ipswich River Sanctuary, Topsfield. Elementary Course in Bird Study. 8:00 P.M.
- April 13 Continuing INTERMEDIATE BIRD IDENTIFICATION COURSE, Audubon House, 7:30-9:00.
- April 14 Continuing "WEB OF LIFE," Intermediate Conservation and Natural Science Course. Audubon House, 7:30-9:00.
- April 14 Cook's Canyon, Barre. Thursday evening Bird Walk.
- April 14 Continuing INTERMEDIATE BIRD IDENTIFICATION COURSE, Thursday mornings.
- April 17 Arcadia Sanctuary, Northampton. ANNUAL SPRING CLEANUP DAY, 10:00-4:00. Project: Planting "Crescent Bank" with wildlife food plants. Bring lunch and spade. Coffee provided.
- April 20 Continuing "WEB OF LIFE," Intermediate Conservation and Natural Science Course. Field Trip.
- April 20 Continuing INTERMEDIATE BIRD IDENTIFICATION COURSE. Audubon House, 7:30-9:00.
- April 20 Ipswich River Sanctuary, Topsfield. 8:00 P.M. Elementary Course in Bird Study.
- April 21 Continuing "WEB OF LIFE," Intermediate Conservation and Natural Science Course. Audubon House, 7:30-9:00.
- April 21 Cook's Canyon, Barre. Thursday Evening Bird Walk.
- April 21 Continuing INTERMEDIATE BIRD IDENTIFICATION COURSE, Thursday mornings.
- April 23 Continuing "ECOLOGY WORKSHOP." Monthly field trip meetings until June.
- April 24 AUDUBON FIELD TRIP by bus to Westport.
- April 26 Continuing "THREE KINGDOMS," Introductory Conservation and Natural Science Course. Audubon House. Tuesday mornings, 10:15-11:45.
- April 26 Continuing "THREE KINGDOMS," Introductory Conservation and Natural Science Course. Audubon House. Tuesday evenings, 7:30-9:00.

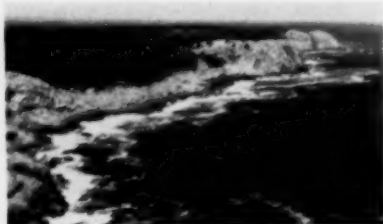
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- April 27 Ipswich River Sanctuary, Topsfield. Elementary Course in Bird Study. 8:00 P.M.
- April 27 Continuing INTERMEDIATE BIRD IDENTIFICATION COURSE. Audubon House, 7:30-9:00.
- April 28 Arcadia Sanctuary, Northampton. "EARLY SPRING BIRDS." Leader, Professor Myra Sampson, Department of Zoology, Smith College. 7:00 P.M.
- April 28 Arcadia Sanctuary, Northampton. "PLANTING SHRUBS AND TREES FOR BIRDS." Leader, William I. P. Campbell, Horticulturist and Curator of the Botanic Gardens, Smith College. 7:00 P.M.
- April 28 Cook's Canyon, Barre. Thursday evening Bird Walk.
- April 28 Continuing INTERMEDIATE BIRD IDENTIFICATION COURSE, Thursday mornings.
- April 28 Continuing "WEB OF LIFE," Intermediate Conservation and Natural Science Course, Audubon House, 7:30-9:00.
- April 29-30 Bird and Arbor Day.
- May 1-7 AUDUBON WEEK.
- May 2-6 BOSTON PUBLIC GARDEN WALKS. A leader will be on hand to point out birds from 12:30 to 1:30.
- May 3 Continuing "THREE KINGDOMS," Introductory Conservation and Natural Science Course. Audubon House. Tuesday mornings, 10:15-11:45.
- May 3 Continuing "THREE KINGDOMS," Introductory Conservation and Natural Science Course. Audubon House. Tuesday evenings, 7:30-9:00.
- May 4 Continuing INTERMEDIATE BIRD IDENTIFICATION COURSE. Audubon House. 7:30-9:00.
- May 4 Continuing "WEB OF LIFE," Intermediate Conservation and Natural Science Course. Field Trip.
- May 4 Ipswich River Sanctuary, Topsfield. Elementary Course in Bird Study. 8:00 P.M.
- May 5 Cook's Canyon, Barre. Thursday evening Bird Walk.
- May 5 Arcadia Sanctuary, Northampton. HAMPSHIRE BIRD CLUB WALK. Leader: Professor William Randall, Department of Physical Education, University of Massachusetts. 7:00 P.M. WOODCOCK FLIGHT SONG. A twilight excursion. 8:30 P.M. Leader: Edwin A. Mason.
- May 5 Continuing "WEB OF LIFE," Intermediate Conservation and Natural Science Course. Audubon House, 7:30-9:00.
- May 5 Continuing INTERMEDIATE BIRD IDENTIFICATION COURSE. Audubon House. Thursday mornings.
- May 7 STATE-WIDE AUDUBON WALKS and OPEN HOUSE AT AUDUBON SANCTUARIES.
- May 9-13 BOSTON PUBLIC GARDEN WALKS, 12:30 to 1:30.

Dr. Sharpe, head of the geology department at Barnard College, on reading the *Bulletin* recently, asked to see more copies and commented, "The Massachusetts Audubon Society

has a great magazine." From George Dock, Jr., Advertising, 131 Cedar Street, New York City, comes the comment, "Your latest *Bulletin* is one of the best yet."

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BOOK REVIEWS

ANIMALS EVERYWHERE. By Ingri and Edgar Parin D'Aulaire. Doubleday & Company, New York. 1954. 24 pages \$2.00.

Here is a nursery age picture book to be highly recommended. Animals typical of climates from the tropics to the arctic are charmingly depicted in two-page color illustrations. A few lines at the bottom of the pages tell characteristic traits of the animals shown; for instance, "The sly Fox sneaks. The Donkey Balks." On the following pages is a black and white reverse image of the animals. Beneath these are short sentences telling us what sort of sound the animal makes: "The Fox yaps. The Donkey brays."

While slightly stylized, the illustrations convey a delightful idea of the animals. The book is valuable in giving the young child, not only a picture of animals from many parts of the world, but also of the habitats in which they live, and the artist is most effective in making the jungle seem very hot and the arctic seem very, very cold. When the captions are read, the youngster gets an idea of the habits and voice of the particular animal as well as its physical appearance. Certainly this book is bound to be a nursery favorite.

ELLEN D. BENNETT

SHEARWATERS. By R. M. Lockley. With 31 photographs, 4 figures, and 4 maps. Devin-Adair Company, New York. 1953. 238 pages. \$4.00.

This is a reprint of the book by the same title, first published in 1942. The price is the same in this country as in 1942, at which time it seemed exorbitant.

Shearwaters concerns mainly a twelve-year life history study of the Manx Shearwater on an island off the Welsh coast. Like Mr. Lockley's later work on puffins, it is a commendable book, combining good reporting on a scientific project with an easy and entertaining literary style. It also still stands as one of the few thorough monographs on a Procellariiform ("tubenosed") species. Despite the fact that shearwaters are somewhat colorless avian personalities when compared with puffins, the author succeeds in making them attractive as subjects for study. The part of the book dealing with homing experiments on shearwaters is particularly stirring. Mr. Lockley relates at great length how one nesting bird, transported to and released at Venice on the Adriatic Sea, returned to the home burrow after taking only fourteen days to negotiate 3,700 miles by sea!

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Audubonites Invited to Castle Hill

A letter has been received from Bradford Williams, Chairman of the Committee on Management of the Castle Hill Foundation, announcing to members of the Massachusetts Audubon Society, who are also members of the Trustees of Reservations, or who might become members, an opportunity to use the facilities of the Great House at Castle Hill, Ipswich, during the spring migratory season of 1955.

Mr. Williams reminds us that from mid-April to the last of May, Crane Beach and its adjoining dunes, as well as near-by Plum Island, offers a steady procession of migratory birds — especially shore birds during the latter part of this period. The Great House, accommodating some thirty guests, is owned by The Trustees of Reservations and will be open, fully staffed, for the spring season. Bird watchers who are interested should make reservations early while accommodations are still available, addressing inquiries as to rates to Colonel J. Perry Smith, General Manager, Castle Hill Foundation, The Richard T. Crane, Jr., Memorial Reservation, Ipswich, Massachusetts.

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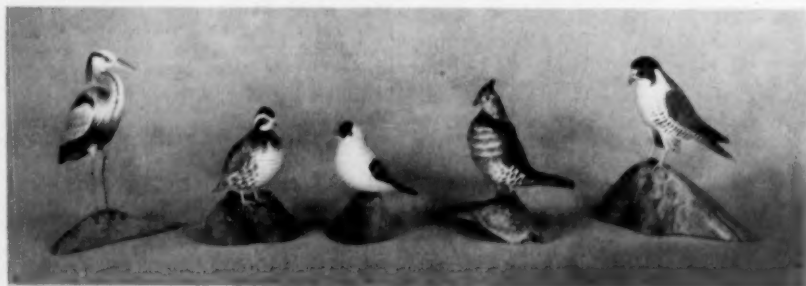
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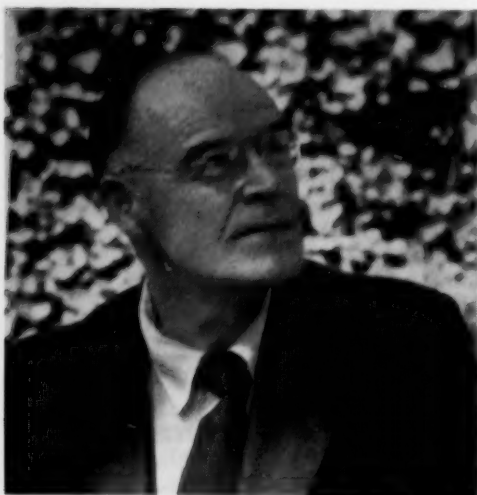
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J. d'ARCY NORTHWOOD is curator at Mill Grove, the Audubon Shrine and Wildlife Sanctuary at Audubon, Pa. He has studied birds in Europe, North and South America and the West Indies, and is author of "*Familiar Hawaiian Birds*".

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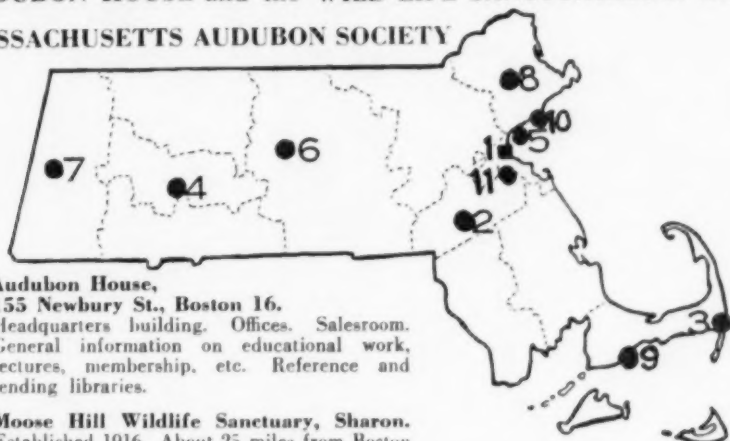
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1. **Audubon House, 155 Newbury St., Boston 16.**
Headquarters building. Offices. Salesroom. General information on educational work, lectures, membership, etc. Reference and lending libraries.
2. **Moose Hill Wildlife Sanctuary, Sharon.**
Established 1916. About 25 miles from Boston near Providence Pike. 250 acres mixed woodland. Small pond. Museum. Nature Trails. Albert W. Bussewitz, Resident Director.
3. **Tern Island Wildlife Sanctuary, Chatham.**
Established 1936. 10 acres sand and beach grass. Large colony of nesting terns. Management, O. L. Austin Ornithological Research Station, North Eastham.
4. **Arcadia Wildlife Sanctuary, Northampton.**
Established 1944. 300 acres meadow, marsh, and woodland. Nature Trails. Memorial and experimental plantings. Studio workshop. Edwin A. Mason, Resident Director.
5. **Nahant Thicket Wildlife Sanctuary, Nahant.**
Established 1948. 4 acres. On Atlantic Flyway. Hordes of migrating land birds in spring and fall. Trails.
6. **Cook's Canyon Wildlife Sanctuary, Barre.**
Established 1948. 35 acres. Coniferous plantation. Small pond. Rocky gorge. Interesting trails. Site of Natural Science Workshop for leaders and resident and day camps for boys and girls. David R. Miner, Resident Director.
7. **Pleasant Valley Wildlife Sanctuary, Lenox.**
A "Bird and Wild Flower" Sanctuary since 1929. A square mile of typical Berkshire woodland and stream valley. Nature Trails. Trailside Museum. Beaver pond. Barn Restaurant in summer. Alvah W. Sanborn, Resident Director.
8. **Ipswich River Wildlife Sanctuary, Topsfield, Wenham and Hamilton.**
Established 1951. 2000 acres. On Ipswich River. Extensive marshland with islands. Great variety introduced trees and shrubs. Elmer P. Foye, Resident Director.
9. **Sampson's Island Wildlife Sanctuary, Cotuit.**
Established 1953. 16 acres sand and beach grass, nesting place of terns.
10. **Marblehead Neck Wildlife Sanctuary, Marblehead.**
Established 1953. About 15 acres mixed hardwoods and maple-alder swamp, especially interesting during migrations.
11. **Rocky Knoll Sanctuary and Nature Center, Milton.**
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